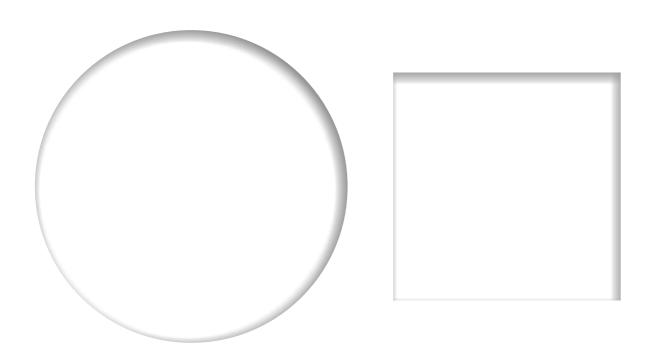




# ELEMENTS OF A SUSTAINABLE DEVELOPMENT REPORT 2016-17

# ELEMENTS OF A SUSTAINABLE FUTURE



**TRANSFORMING ELEMENTS** From metals that strengthen the exchequer and boost industrial production, to energy that enlightens homes and powers progress - our products help millions of lives realise their ambitions and countries to achieve their goals.

**TRANSFORMING LIVES** From Nand Ghars that facilitate preprimary education to self-help groups that make women financially independent; from programmes that skill the youth to workshops that educate the farmers-Our social initiatives bring lasting prosperity to communities.

#### **ABOUT THIS REPORT**

Welcome to our ninth Sustainable Development Report, which is prepared based on Global Reporting Initiative (GRI) G4 - 'in accordance'- Core guidelines and is mapped to the United Nations Global Compact (UNGC) and will align to Sustainable Development Goals (SDGs).

It reports our approach and disclosure towards triple bottom line principles - people, planet and profit over the financial year 2016-17. See page 72 for more information about our reporting.

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Visit our interactive online Sustainable Development Report 2016-17 at sd.vedantaresources.com/SustainableDevelopment2016-17



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# WEDANTA AT A GLANCE

Vedanta Resources is a London Stock Exchange listed, globally diversified natural resources company with interests in Zinc, Lead, Silver, Copper, Iron Ore, Aluminium, Power and Oil & Gas. Our exploration portfolio from all the four continents that we operate in, follows a history of consistent geological discovery, sustainable growth, long-term value creation and improved best-in-class operations.

Our focus on sustainable development is reinforced through building strong, engaging and beneficial partnerships with all our stakeholders.



#### Our key operations include

- Zinc-Lead-Silver
- Debari smelter 2 Chanderiya smelters
- 3 Rampura-Agucha mine
- 4 Rajpura Dariba mine & smelters and Sindesar Khurd mine
- 5 Zawar mine
- 6 Skorpion mine, Namibia
- 7 Black Mountain mine, South Africa
- 8 Lisheen mine, Ireland\*

- Oil & Gas
- 1 Rajasthan block
- 2 Ravva (PKGM-1) block
- 3 Cambay (CB/052) block
- 4 South Africa block 5 KG-OSN-2009/3 block
- 6 PR-OSN-2004/1 block
- Iron Ore
- 1 Iron ore operations Goa
- 2 Iron ore operations Karnataka
- 3 Iron ore projects Liberia

- 1 Silvassa refinery
- 2 Tuticorin smelter
- 3 Mt Lyell mine, Australia\*\*
- 1 Lanjigarh alumina refinery
- 2 Jharsuguda smelters & power plants
- 3 Korba smelters & power plants

- 1 MEL power plant
- 3 Talwandi Sabo Power Plant
- G Captive thermal power plant
- \*Lisheen had safe, detailed and fully-costed closure after 17 years of operation in November 2015
- \*\*Under care and maintenance

**VEDANTA OPERATES ACROSS THE VALUE CHAIN - FROM EXPLORATION, ASSET** DEVELOPMENT, AND EXTRACTION, TO PROCESSING AND VALUE ADDITION, TO DELIVER LONG-TERM VALUE AND GROWTH ACROSS ALL STAGES.

For a detailed description on how we add value across our value chain, refer to our comprehensive sustainability report.

# ZERO HARM WASTE DISCHARGE



#### HSE CHARTER

We will fulfill our duty to protect the safety and welfare of our people and plan to achieve our health, safety and environment goal of zero harm to become the best performer in the resources industry by:

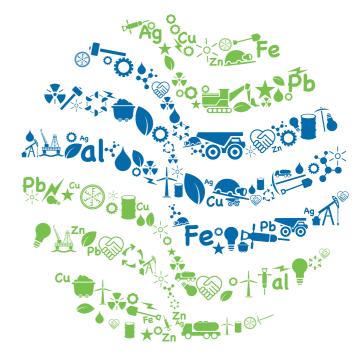
- ✓ Implementing world class standards that deliver our legal obligations and company policies
- Managing risk in all forms by applying controls and testing their effectiveness
- ✓ Setting priorities and commitments and measuring, monitoring and reporting performance
- Maintaining an open dialogue with our business partners and stakeholders
- Applying this discipline every day in every aspect of our business

It's all of our responsibility to ensure that everyone who works on our site returns home safely every day while protecting the environment for our future generations.

preend **ANIL AGARWAL** Chairman

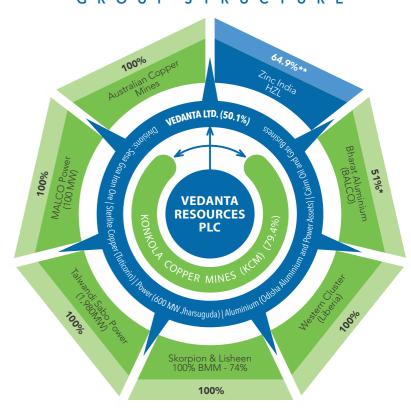
June 2016

#### Power of One



people | planet | prosperity

#### G R O U P S T R U C T U R E



Listed entityUnlisted entity

OIL & GAS | ZINC-LEAD-SILVER | ALUMINIUM | POWER | IRON ORE | COPPER

\*Option to increase stake to 100% | \*\*Option to increase stake to 94.4% | Note: Shareholding post Cairn India merger

# FROM THE CHAIRMAN'S DESK



Vedanta is a purpose-driven organisation. Our products power economies of several nations, while our social programmes empower communities, to make a positive impact on human life. At Vedanta, we leverage innovation and technology to harness the elements of natural resources and transform them to fuel progress and development, with a committed goal of Zero Harm, Zero Waste and Zero Discharge.

#### **PEOPLE**

As Vedanta, we aim to make our contribution to our people and our communities a benchmark for businesses across the globe.

There is a distinct demographic advantage in nations we operate in. Dynamic populations of youth have the resolve to challenge the status quo, passion for what they do and ambition to do more. We bring together the talent of this new-age generation and experienced knowledge anchors, to set and achieve ambitious sustainability targets.

We are making our work environment safer. We have in place policies, standards and best practices to ensure the health and safety of Vedanta's workforce. This year, we recorded our best-ever safety performance in terms of lost time injury frequency rate. I am saddened that seven of our people lost their lives. Achieving zero harm continues to remain our aim. We rigorously undertake improvement interventions on safety processes among all our employees and contractors. Upholding safety practices is non-negotiable for all our workforce. I am proud of the significant progress Vedanta has made in this area but we must and will do more.

A signatory of the United Nations' Women's Empowerment Principles (WEP) - 'Equality Means Business', Vedanta practices and promotes equal employment opportunities. Our Board has set a target to raise women board representation to 33% by 2020.

ON INTERNATIONAL WOMEN'S DAY 2017, WE PLEDGED TO PARTICIPATE IN AND LEAD THE UNITED NATIONS' 'PLANET 50-50 BY 2030' VISION.

We continue to proactively engage with the communities in which we operate, by spearheading a number of initiatives and long-term programmes. Upholding education, women's empowerment, skill building, and farming and animal husbandry we enhance the quality of life of communities that support us.

#### **PLANET**

We continue our endeavour of ensuring 'zero harm' to environment as a core focus area for Vedanta. While optimising water consumption or increasing energy productivity, safeguarding biodiversity or recycling and upcycling waste, we have systems, standards and technical guidelines to ensure that Vedanta makes the maximum positive impact.

We signed the first-of-its-kind biodiversity offset agreement of our Black Mountain Mining operation in South Africa to ensure that the ecology around the Gamsberg project remains in safe custody for later restoration.

A commitment to the climate change agenda led to setting up of Carbon Forum headed by the CEO of our Power business, Ajay Dixit, to guide the Group Executive Committee on our climate change mitigation programme.

Wealth from waste continues to be an initiative close to my heart. I see immense potential to use technology to extract valuable resources from the waste we currently discard. This year, we managed to recycle more than half of our non-hazardous waste

#### **PROSPERITY**

What we earn must be invested in social development for communities and corporates to move forward together.

We saw a healthy increase in our productivity this year, with record annual production across our Zinc, Copper, Aluminium and Power businesses in India. This year, we also delivered our promised merger of Cairn India Limited and Vedanta Limited, simplifying the Group structure, and aligning the interests of all shareholders for the creation of long-term sustainable value.

WE CONTINUED TO DISTRIBUTE PROSPERITY. TOGETHER WITH GOLDEN JUBILEE DIVIDEND PAID IN APRIL 2016 AND INTERIM DIVIDEND IN OCTOBER 2016, THE DIVIDENDS BY HINDUSTAN ZINC LIMITED IN FY 2016-17 ARE THE HIGHEST EVER PAID IN INDIA IN A FINANCIAL YEAR.

We also invested almost US\$18 million towards carrying forward our various social initiatives. We are making progress towards our target of building 4,000 Nand Ghars, with 100 launched across India this year. These state-of-the-art child care centres will go a long way in ensuring quality education and nutrition for the children of India, in line with Hon'ble Prime Minister of India. Narendra Modi's vision.

In March 2017, I met with His Excellency President Edgar Chagwa Lungu of Zambia and shared Vedanta Resources' 50-year vision for the country. This includes an investment of US\$1 billion for the next phase of growth; an investment that is expected to create 7,000 jobs. We are aware of the legacy of the Copperbelt and are committed to do much more to improve the livelihood of downstream communities. I also committed to further help diversify the economy of the Copperbelt by supporting initiatives in agriculture and technology. Konkola Copper Mines currently supports 2,700 families and small-scale farmers through its Sustainable Livelihoods programme.

Our focus is aligned with the priority needs of our stakeholders and global best practices. We have dialogues with the local communities, in accordance to the Company values and reiterate our commitment to free prior informed community consent for sourcing bauxite. We are continuously analysing the impact of and adopting technologies that help us explore and operate more sustainably.

DURING THE YEAR, WE INITIATED A US\$30MN INVESTMENT FUND FOR IN-HOUSE R&D, SUPPORTING OUR WEALTH OF KNOWLEDGE AND SPIRIT OF INNOVATION WITH MEANINGFUL RESOURCES.

Due to the diligent work by teams across its operations, Vedanta Limited has been ranked as India's leading publicly listed company in the India Disclosure Index 2016. It became the only company in the natural resources sector to achieve the full score across all disclosure parameters. This strengthens my belief that we are on course in our sustainability journey, and that with the guidance of the Board Sustainability Committee, we will lead global benchmarks.

We remain committed to building a strong relationship with you and all our stakeholders, because only together can we create a sustainable future.

ANIL AGARWAL
CHAIRMAN, VEDANTA RESOURCES



#### CEO'S MESSAGE



A sustainable future is one in which growth and development are environmentally sustainable, human rights are protected, and benefits of progress are shared equitably amongst all the stakeholders. As custodians of the natural resource sector, we remain committed to the principle of Zero Harm to People and Planet and ensure that we leave behind a positive legacy for generations to come.

At Vedanta, our efforts on Sustainable Development starts with our commitment to Social License to Operate. The Vedanta Sustainable Development Model comprises of four key elements - Responsible Stewardship, Building Strong Relationships, Adding & Sharing Value and Strategic Communications.

Together, these elements enable us to ensure effective business processes that mitigate risks, protect health and safety of our employees, efficiently manage the environmental footprint, and enhance indirect and direct impact to employees, communities, investors, suppliers, customers and governments.

Sustainable development is at the heart of our business and to make a valuable contribution to the collaborative global effort we have aligned our sustainability philosophy and practice to the UN Sustainability Development Goals.

#### **RESPONSIBLE GROWTH**

It is our strong conviction that higher accountability yields better outcomes and thus it is our constant effort to go beyond compliance in all three domains environmental, social and economic. At Vedanta, we continue to focus on those factors that are in our control. This includes delivering production and growth, optimizing costs and leveraging technology & innovation for operational excellence to run our business even more efficiently and productively with robust safety, health and environmental performance.

Vedanta acknowledges the rising global concern on climate change and continues to take sustained action to reduce its impact through energy conservation. We have revised the Vedanta Carbon Policy and Carbon Strategy under which we have set ourselves a goal to reduce our carbon intensity. We expect to achieve up to 16% reduction in carbon intensity by 2020 from a 2012 baseline, which was the first year of audited data. We are also scaling up solar energy in our energy mix. Hindustan Zinc commissioned a 16 MW solar power plant this year and has set a target of 115 MW in the short-term.

WATER IS A CRITICAL RESOURCE FOR VEDANTA AND WE ARE COMMITTED TO SAVE EVERY DROP WE CAN. THIS YEAR, WE HAVE ACHIEVED 173% OF OUR TOTAL WATER SAVING TARGET.

This was supported by successful implementation of 'zero discharge' at many of our plants, improvement in operational efficiency, setting up effluent and sewage treatment plants, and utilisation of treated water for various applications. Our businesses continue to explore opportunities to utilise fly ash in cement making, road construction and building material manufacturing. This year, nearly 50% of fly ash from our operations was recycled, which we aim to continue in 2017-18 on ramped up capacity utilization of aluminium and power.

We believe that the culture of responsible stewardship starts at home and thus our prime responsibility is to safeguard the health and well-being of our employees. We have directly linked employee remuneration to the implementation of safety performance standards and prevention of fatalities and progress is regularly reviewed and monitored by the board-level sustainability committee. This year, we succeeded in reducing the number of fatalities to seven, from twelve in FY 2015-16. But this performance too is unacceptable and a matter of great concern to us. We are taking definitive steps to eliminate such serious accidents by educating, motivating and mandating an intense safety discipline among our workforce.

#### TRANSPARENT DIALOGUES

Stronger the connect with stakeholders, more resilient is the Social License to Operate. Stakeholder engagement and responsiveness have been institutionalised at Vedanta through our social policy and stakeholder engagement technical standards. These standards require each of our operations to identify stakeholders and determine engagement plans, including recording and responding to all enquiries and grievances.

We continue to uphold the principle of Free, Prior and Informed Consent while engaging the indigenous population for a meaningful dialogue.

We work closely with governments, communities, local & global NGOs as well as industry bodies such as CII, FICCI and WBCSD. Our Code of Business Conduct & Ethics and Human Rights Policy help reinforce stakeholder trust and confidence.

#### **CREATING VALUE**

The core purpose of any organisation is to add value to society and not limited to creation of profit. This year, we contributed US\$6 billion to public finance, globally. Over and above creating jobs and paying taxes, we invest in empowering local communities through education, skilling, providing infrastructure, boosting health indices. Through 3,200+ Self-Help Groups, we empowered around 39,000 women. On the education front, we have transformed Nand Ghars from a mere preschool to a convergence point for a number of government programmes such as clean water, sanitation, primary healthcare and entrepreneurship training.

WE MADE A SOCIAL INVESTMENT OF ALMOST US\$18 MILLION WHICH BENEFITED 2.20° MILLION PEOPLE.

 ${}^{\star}$ Some of the people could have been benefited in more than one project.

#### **SUSTAINABLE COMMUNICATIONS**

Vedanta comprises multiple businesses across diverse geographies but it communicates with one voice. We communicate early and clearly which helps build trust among stakeholders. We utilise multiple dialogue channels to contextualise and provide insights into our actions and intentions.

As a global leader in the natural resources industry, we engage in active advocacy on industry wide issues such as under-pricing of iron ore, bauxite linkage and promoting zinc and take up spearhead roles in industry forums and events. A sustainable future can only be carved when all stakeholders work together and grow together. These synergies can only be strengthened through dialogue and feedback.

I am sure that this report will give you further insights to our efforts around sustainable development. I strongly encourage you to go through the report and share your valuable feedback with us.

TOM ALBANESE
CHIEF EXECUTIVE OFFICER



# OUR STRATEGY & APPROACH

At Vedanta, we understand the value of a unified sustainable development agenda that goes beyond compliance. Though each of our subsidiary businesses operate independently under a federal structure, we follow a Sustainable Development Model which is integral to the core business and the risk management strategy. Developed keeping in mind, multiple internal and external sustainability imperatives like materiality and core values of Vedanta, UNGC's 10 principles, United Nation's SDGs and standards set by International Finance Corporation (IFC), ICMM and OECD,

our Sustainable Development Model comprises four pillars:







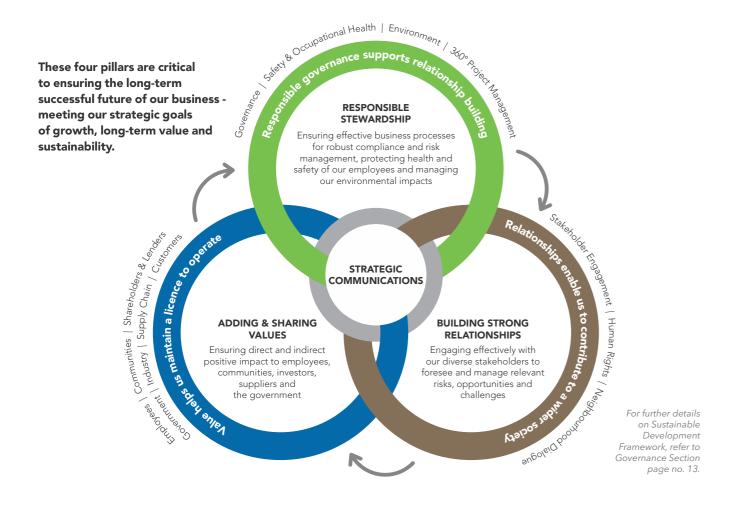


Responsible Stewardship

**Building Strong Relationships** 

Adding & Sharing Value

Strategic Communications



The Sustainable Development Model is reinforced by a Sustainable Development Framework that helps execute the model. The Model and Framework are endorsed by the Board-level Sustainability Committee and provide a robust structure to deliver all-round sustainable performance, and consistency across our business.

#### **Materiality**

MATERIALITY ASSESSMENT HELPS US MAINTAIN THE RELEVANCY AND CREDIBILITY OF THE REPORT, AND ENSURES THAT IT REMAINS FOCUSED ON WHAT MATTERS. OUR MATERIALITY PROCESS IS IN LINE WITH GLOBAL REPORTING INITIATIVE (GRI) GUIDANCE. WE SEEK TO IDENTIFY THE ISSUES MOST IMPORTANT TO OUR STAKEHOLDERS AND OUR BUSINESS, AND PRIORITISE OUR INTERVENTIONS ACCORDINGLY.

Two years ago, we conducted a comprehensive Group-wide materiality process comprising identification of material sustainability topics, prioritisation of these topics and verification of our analysis.

To understand the perspective of external stakeholders, we continue to engage with our six core stakeholder groups: Shareholders and Lenders, Industry (suppliers, customers and peers), Civil Society (NGOs and other organisations), Governments, Employees and Communities on a continuing basis. We also conduct a detailed ranking exercise to understand the importance given to certain material issues by the stakeholders. To get the management's perspective, we conduct internal leadership and operational management workshops, interviews and ranking exercises.

#### **Material Aspects**

The responses from the ranking exercises are sieved through two measures: 'Relevance to Vedanta's Stakeholders' and 'Relevance to Vedanta Management'; and what emerges is a materiality matrix that is an eclectic mix of sustainability issues that is relevant to us and our stakeholders. This year we have revalidated this materiality matrix.

#### MATERIALITY MATRIX



This materiality matrix is reviewed and ratified by both the Executive Committee (EXCO) and the Sustainability Committee. The top-right corner indicates the highest priority issues, indicating the importance for both, the stakeholders as well as the management.

#### Roadmap & Progress

To realign the Group's energy and carbon

policy in line with COP 21 outcomes

Energy saving: 1.5 million GJ

OUR ROADMAP SETS CHALLENGING ANNUAL TARGETS ON ISSUES MATERIAL TO US AND OUR STAKEHOLDERS, AND IS REVIEWED EVERY YEAR WITH A VIEW TO UNDERSTAND OUR TRIPLE BOTTOMLINE PERFORMANCE. THE GAPS IDENTIFIED ARE ADDRESSED APPROPRIATELY THROUGH ALTERATIONS IN BOTH

**Objectives and Targets** 

We are considering formal GHG reduction

targets and we expect to achieve a 16% reduction in carbon intensity by 2020 from

a 2012 baseline, which was the first year of

Energy Saving: 1.39 million GJ

audited data

**Performance** 

Objectives and Targets FY 2016-17 FY 2016-17 FY 2017-18 OCCUPATIONAL HEALTH & SAFETY Implement safety performance standards: Average score was 52%. Zinc India, Zinc Achieve score >75% in six safety >75% of critical elements in the standards International and Aluminium Iron Ore performance standards to be implemented across the business were audited and recorded improvement compared to the previous year Performing baseline assessments for Extend baseline health assessment Expanded the baseline exercise at two other businesses Jharsuguda in March 2017. Also, looking across businesses to increase the speed of application in other businesses Achieve zero fatal accidents Total - seven fatalities occurred in the Zero fatal incidents and 22% reduction reporting year (Iron Ore business - 1, in Loss Time Injury Frequency Rate (LTIFR) KCM Zambia - 2, HZL - 4) **ENVIRONMENT** Water saving of 3.93 million  $m^3$  at the Water saving: 2.1 million m<sup>3</sup> • Standardise water risk assessment end of FY 2016-17 achieved approach for the business Undertake water risk assessment for significant businesses with water as a material issue • Water saving: 2.2 million m<sup>3</sup> Continue to monitor new projects and site All projects at Vedanta Limited are Compliance to environment and social closure as per the sustainability framework being managed as per Vedanta management plan for new projects across Sustainability Framework Completion of Biodiversity We have made considerable progress Complete BMP at our oil & gas business Management Plans in this regard. All our operations have BMPs except few operations in KCM business, Oil and Gas business and Karnataka iron ore business Nearly 50% of fly ash from our operations To continue exploring opportunities and Achieve 50% of fly ash utilisation rate areas to increase the fly ash utilisation rate is recycled. The business continues exploring opportunities to utilise fly ash in cement making, road construction and building material manufacturing

Carbon Forum has been formed.

We reached energy saving of 0.62

million GJ at the end of FY 2016-17

Policy and strategy drafted with baseline

targets and actions under development

OUR TARGETS AND ACTIONS. THE ROADMAP CONTINUES TO STEER OUR SUSTAINABLE DEVELOPMENT JOURNEY. THE OBJECTIVES AND TARGETS ARE MAPPED IN ALIGNMENT WITH THE MATERIALITY ISSUES AND THE SUSTAINABLE DEVELOPMENT GOALS.

Objectives and Targets FY 2016-17	Status	Performance FY 2016-17	Objectives and Targets FY 2017-18
ENVIRONMENT			
Independent expert to review high priority facilities	•	Review completed and those responsible for dam management have been trained. Two facilities undergoing further analysis, but no areas of immediate concerns were found and some best practices identified	Complete the dam break analysis of the identified facilities across businesses
Capacity building (selected professionals) on biodiversity management including ecosystem services	•	Could not initiate in FY17	Initiate the capacity building of selected professionals on biodiversity
COMMUNITY RELATION & STAKE	HOLDE	RENGAGEMENT	
Social impact assessment studies to be continued for remaining sites	•	Need-based assessment completed for almost all sites. The social impact assessment studies were done at oil & gas business	Social impact studies to be continued for remaining sites
Implementation and utilisation rate of the SAP system to be increased	•	SAP - Stakeholder and grievance handling system rolled out	_
-		-	Expand the company's flagship CSR programme, Nand Ghar, to all our businesse
-		-	Embed and encourage employee volunteering for social initiatives
HUMAN RESOURCES			
Focus on performance and measurement for top 150 leaders	•	Scope and contract finalised. Scorecard of 700 professionals in place including top 150 leaders. Initiative being driven in project mode	Employee scorecard coverage to be extended to 100% of the professional employees
Ensuring 100% coverage of Code of Conduct training for all employees		100% employees could not be covered under code of conduct training	Ensure 100% coverage of code of conduct training for all new professional employees
Continue to focus on the diversity objective of 15% of new hires to be women	•	18% of employees joining this year were women	Focus will be to increase gender diversity in hiring 20% women this financial year
33% female representation at the Vedanta Board Level by 2020		We are moving forward to achieve the target. During the reporting year, we have made a number of senior female appointments	Target to achieve 33% female representation at the Vedanta Board Level by 2020

#### **Sustainable Development Journey**

Our sustainable development journey continues to break new grounds and unlock immense value for us and our stakeholders. We have invested our time and resources in introspecting our actions; we have achieved our targets and formulated ambitious new ones; we have adopted global best practices and taken innovative leaps; we have aligned our standards with industry benchmarks and charted some of our own. We have done all this and continue to do it with a singular agenda: ensuring long-term growth for all stakeholders.

#### FY 2013-14

## Businesses started Introduci embedding Vedanta Communi pillar of ou

training and implementation of policies and standards

#### External Review Concluded (URS - Scott Wilson)

all recommendations got successfully closed

#### Sustainability linked with Remuneration sustainable

development KPIs linked to executive remuneration

#### Vedanta Sustainability Assurance Programme (VSAP) into its Second Year of Implementation

supported by external auditors

#### FY 2014-15

#### Introducing 'Strategic Communications' as a new pillar of our Sustainable Development Model

#### Rolling out of Vedanta Sustainable Development Framework continues

Introduction of safety performance standards, formal safety risk assessment, industrial hygiene baseline assessment and safety leadership coaching

### VSAP into its Third Year of Implementation revised as per the material priorities,

supported by external auditors

#### **Environment & Social Review** of VSAP Started external review

Revisiting our Community Need Assessment Studies aligning all community projects with updated studies

#### FY 2015-16

#### Environment & Social Review of VSAP Continued external review

VSAP into its Fourth Year of Implementation revised as per the material priorities with more emphasis and focus on safety by inclusion of safety performance standards, supported by external auditors

#### Advancing Accountability by incorporating safety performance standards into

executive remuneration

Social Impact Assessment Studies - HZL & Cairn India aligning all community projects with updated studies

#### FY 2016-17

#### VSAP and its Implementation

#### VSAP material priorities identified for the FY 2016-17

are occupational health and safety, resource use and management, stakeholder engagement, and supplier and contract management

#### Social Impact Assessment Studies need-based assessment completed for

nearly all our businesses. The major social impact assessment studies were done at Cairn Oil and Gas Business

#### Advancing Accountability

employee health, safety and well-being identified as the material issue, is a key priority for the company. Hence, it is addressed by incorporating safety performance standards into executive remuneration











Governance | Safety & Occupational Health | Environment

It encapsulates our approach towards the safety of our employees, sustenance of the environment and effective implementation of our business processes.

A vital part of all phases of our project lifecycle -Responsible Stewardship is how we manage risk, demonstrate legal compliance and leverage best practices.

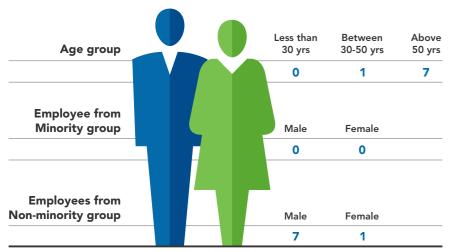
# STEWBRIDSHIP STEWBORN STEWBORN

Vedanta is a multi-geographic, multi-stakeholder, federally modelled organisation with a unifying thread across all our Group's activities. Our robust governance structure headed by our Board of Directors serves that purpose of binding all of the Group's activities into a coherent whole. The Board, aided by a strong and well-designed process, policies and Sustainable Development Framework, governs business with strict adherence to ethical conduct and a high degree of transparency.

A WELL-DEFINED REPORTING STRUCTURE WITH CLEARLY ALLOCATED ROLES ENSURES A FAIR RESPONSE TO THE LOCAL ISSUES. A RECEPTIVE FEEDBACK MECHANISM AND SWIFT REDRESSAL SYSTEM ENSURES THAT WE OPERATE EFFECTIVELY AND EFFICIENTLY.

In accordance with the UK Corporate Governance code, majority of our Board, excluding the Chairman, comprises of independent Non-executive Directors. As of March 31, 2017, our Board consists of the Executive Chairman, Executive Vice Chairman, Chief Executive Officer and five independent Non-executive Directors. The Directors come from diverse international backgrounds and enrich the Board with a wide range of professional and sector-specific experience. The Board is responsible to shareholders for ensuring that the Company is appropriately managed and achieves its objectives to deliver long term success.

#### **COMPOSITION OF THE BOARD**



Details of the Board's responsibilities, composition, training and evaluation are available in the Annual Report.

While our 'Code of Business Conduct and Ethics' provides a set of principles to guide our employees, our Sustainable Development Framework outlines best practice standards and policies that encourage consistent improvement across functional areas Additionally, we also follow internationally accepted standards and good practices such as ICMM, IFC and OECD guidelines.

Our governance philosophy is steered by a 'looking beyond compliance' approach. This helps us plan, design, operate and close

operations in a manner that enhances sustainable development. We regularly engage international consultants to audit our sustainability practices and provide feedback on areas where we are performing well, and areas where we need to improve.

#### CODE OF BUSINESS CONDUCT & ETHICS

**₹** | SDG16

ETHICS AND INTEGRITY ARE DEEMED ABSOLUTELY ESSENTIAL BY OUR MANAGEMENT TEAM AS WELL AS THE GROUP'S INTERNAL AND EXTERNAL STAKEHOLDERS. WE ARE COMMITTED TO A ZERO-TOLERANCE APPROACH TOWARDS FRAUD. BRIBERY AND ANY FORM OF CORRUPTION.

OUR CODE OF BUSINESS CONDUCT AND ETHICS (HEREAFTER, CBCE) COMPLIES WITH THE LAW OF THE LAND AND EVEN GOES BEYOND (LEGAL) COMPLIANCE, WHERE RELEVANT. OUR LISTING AND REPORTING REQUIREMENTS IN THE UK RAISES THE BAR ON VARIOUS GOVERNANCE ASPECTS SUCH AS:







TRADING



**POLITICAL CONTRIBUTIONS** 



**OF INTEREST** 



CONFIDENTIALITY



& CORRUPTION

We are aligned with the UN Sustainable Development Goals and the UK Modern Slavery Act 2015 and are rolling out a uniform framework for their implementation. In order to ensure transparent and easy access to our policies in the public domain, our Insider Trading Prohibition Policy and Antitrust Guidance Notes relating to Disclosure of Sensitive Information etc., are publicly available on our website and are incorporated into contracts where relevant

Our CBCE, updated to comply with the UK Bribery Act, 2010, expressly prohibits payment and receipt of bribes directly or indirectly through associated persons. All employees across the organisational hierarchy adhere to the CBCE; in letter and in spirit. Employees are expected to adhere to the highest standards of integrity and report even minute violations, which are then addressed and resolved promptly after an impartial external investigation.

The Audit Committee, comprising four Nonexecutive Directors, assists the Board in maintaining and monitoring the integrity of the Group's financial statements, assessing the effectiveness of the Group's risk management system and internal controls, and the independence and objectivity of the external auditor. To carry out its duties effectively, the Audit Committee receives a detailed information from management. The information is reviewed and presented to Audit Committee by management along with the internal and external auditors, as required.

#### All business units are periodically reviewed for risks related to corruption and bribery

Our Whistleblower Policy currently communicates our commitment to a "policy against retaliation", and commitment to maintaining confidentiality, in case of a company employee. That commitment does not currently extend to third parties, including contractors. A review of the existing policy document and whistleblower mechanism is planned, in order to ensure that the good practice provisions are extended to third parties, including contractors.

Under our Whistleblower Policy, employees and external stakeholders are provided a

mechanism (toll free number, email id and a reporting portal) to report inappropriate behaviour. We maintain strict confidentiality with the employee and ensure a free and fair investigation, without any fear of repercussion.

Between January and December 2016, 129 whistleblower cases were reported and resolved, of which 33 were upheld and found correct, resulting in appropriate disciplinary actions against those employees, contract workforce and vendors including warning, counselling, transfer and

## whistleblower cases reported & resolved

To ensure that all employees are well-versed with our Code, mandatory training is provided for new recruits and refresher workshops on anticorruption policies and procedures are conducted for relevant employees.

This year, we provided more than

375,573 hours

of training on Code of Conduct including Human Rights aspects.

The supply chain is a significant contributor to our performance footprint and so we have institutionalised a dedicated accountability mechanism for suppliers and contractors.

Our Suppliers' Code of Conduct communicates our requirement for our suppliers to operate in compliance with all relevant legislation, align to our policies while executing work for, or on behalf of Vedanta or on our sites, and adopt ethical good practices.



**VEDANTA ENCOURAGES SUPPLIERS TO ADOPT PRINCIPLES AND** PRACTICES COMPARABLE TO OUR OWN, INCLUDING THE SUPPLIER CODE OF **CONDUCT. SUPPLIER AND** CONTRACTOR **MANAGEMENT POLICIES AND SUPPLIER SCREENING** CHECKLIST.

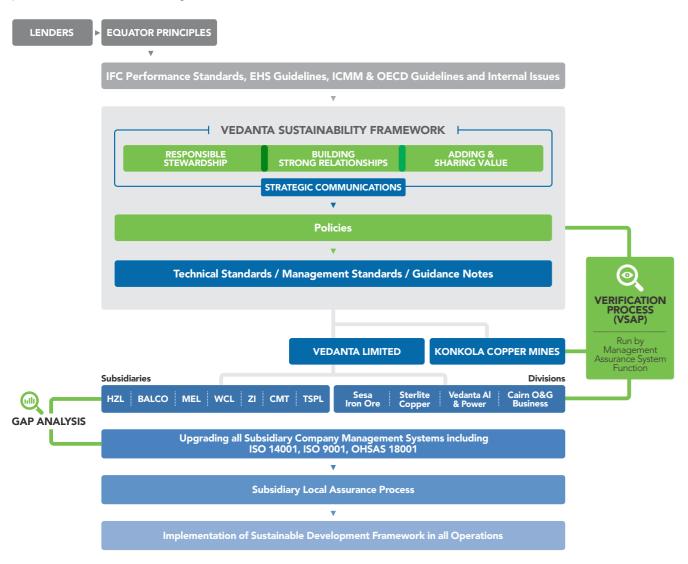
#### FRAMEWORK & IMPLEMENTATION

#### **Sustainable Development Framework**



Our Sustainable Development Model is underpinned by a Sustainable Development Framework that helps each business put the Model into practice. The Framework, rolled out in FY 2012-13, comprises several policies, standards and guidance notes that were developed in line with ICMM, IFC, OECD, UNGC and SDGs guidelines.

Our efforts to establish and implement a robust Sustainable Development Model and Framework that is aligned with all international best practices, is illustrated in the following chart:



Over the years, the Framework has served as an effective tool to unify Vedanta's sustainability approach across diverse geographies and businesses. Today, it is an integral part of our business strategy and helps us and our subsidiary businesses to conduct business in line with our core values of trust, entrepreneurship, innovation, excellence, integrity, respect and care.

Each of our subsidiary businesses have carried out a gap analysis to identify any lacunae between their existing management systems and processes, and the Sustainable Development Model and Framework

**ALL OUR DECISIONS ARE SIEVED** THROUGH THE INDICATORS OF THE SUSTAINABLE DEVELOPMENT FRAMEWORK TO ENSURE THAT **WE REMAIN SAFE, ETHICAL AND** TRANSPARENT AT ALL TIMES.

The identified gaps have been discussed and reviewed by the leadership teams, and action plans are in place to ensure compliance within a specified period of time.

The Vedanta Sustainability Assurance Programme (VSAP) - our internal risk management tool run by the Group's Management Assurance System, is in place to ensure compliance with the Framework. This ascertains that all our businesses are monitoring and reviewing their sustainability objectives and implementing the same at regular intervals.

#### The **Implementation**



**OUR BOARD COMPRISES EIGHT DIRECTORS, AND MORE THAN 50% OF THEM** ARE INDEPENDENT.

The Sustainable Development Framework is deeply embedded in the ethos of Vedanta. The Board of Directors provides leadership and guides the businesses towards fulfillment of the commitment to various stakeholders. The Sustainability Committee laid by Independent Director and supported by business CEO's, corporate sustainability team reviews and monitors progress against the framework and sustainability objectives and targets during the year. The Executive Committee is supported by the Corporate Sustainability Team.

#### **VEDANTA BOARD** SUSTAINABILITY COMMITTEE NOMINATIONS COMMITTEE REMUNERATION COMMITTEE AUDIT COMMITTEE **EXECUTIVE COMMITTEE** Chaired by Chaired by Chaired by Chaired by CEO, Chaired by Chairman, Non-executive Director, Non-executive Director, Mr. Geoffrey Green. Non-executive Director, Mr. Tom Albanese Mr. Anil Agarwal, Mr. Aman Mehta. Ms. Katya Zotova. The Committee meets The Committee identifies The Committee monitors The Committee oversees The Committee monthly and is the optimum balance of the effectiveness of the Group sustainability maintains and monitors responsible for skills, background and communication with performance and reports Group systems and implementing strategic experience on the Board. analysts and shareholders plans formulated by the to the Board on a internal controls. concerning the Board's periodic basis. including integrity of Board, allocating resources in line with Remuneration Policy. financial statements. delegated authorities anti-bribery and corruption procedures and monitoring the and employee operational and whistleblower policies financial performance of the Group. See the Annual Report for See the Annual Report See the Annual Report for See the Annual Report for See the Annual Report for for detailed information detailed information detailed information detailed information detailed information **SUSTAINABLE DEVELOPMENT TEAM** COMMUNITY RELATIONS REPORTING & COMMUNICATION **OCCUPATIONAL ENVIRONMENT** SAFFTY

As part of the implementation process, we provided training to relevant management teams to ensure a solid understanding of the Framework's requirements. We cascaded information to our subsidiary businesses, providing on-location training to managers, to ensure that they could drive compliance within their teams. Large-scale posters and other support materials were provided to reinforce key messages. This is as an ongoing process, and is part of the training calendars for each business.

In order to further embed our Framework, we also delivered additional topic-specific training across the Group, addressing areas such as health and safety management, environmental incidents, international standards such as the Global Reporting Initiative (GRI), and reporting best practice and assurance. The importance of the Framework is reinforced by measures like linking management remuneration to key sustainability targets, communication and

celebration of success in meetings, and monitoring of progress against established targets. Framework documentation is made available to all employees through the company's website, on individual company portals, and through awareness training, which is attended by staff at all levels.

•

Review of Sustainable Development Team and Segment Business Committee

Ensuring Sustainable development is a key business responsibility at Vedanta and specific

Last year, we provided man-hours of HSE training

171,566 man-hours were slotted for employees

man-hours

were dedicated for

contract workforce

939,874

The expected outcomes are clearly defined at the beginning of a financial year. Monitoring and management mechanisms

resources have been dedicated at each of the

Group's businesses towards this purpose

ensure continuous improvement. Continual internal auditing offers a quantitative view of achievements against objectives and keeps our sustainability development programmes

Number of people with	
Sustainability Responsibilities	5
across the Group	<b>J</b>

Community Relations	155
Occupational Health	45
Environment	123
Safety	197

#### THE SUSTAINABILITY COMMITTEE REPORT

Delivering operational excellence and setting the highest benchmarks in governance, safety, environment and social responsibility across the locations of the Group's operations and projects has always been a part of the business model at Vedanta. The Vedanta Sustainability Framework guides us towards a long-term, sustainable future for our business operations, meeting our growth aspirations, and creating long-term value for all our stakeholders.

The robust implementation of the Vedanta Sustainability Framework (VSF) has been a top priority for the Committee. We have made significant improvements in the way we do our business since VSF's launch in 2012. One of the significant sustainability risks for our business has been our Group's safety performance. Considerable efforts have been made in this sphere with involvement at all levels.



The loss of seven lives at our operations during the financial year under review is not only saddening, but also an issue of grave concern that needs to be addressed with immediate effect. We had an unfortunate tragic incident at the HZL project site in Rajasthan, wherein we lost four invaluable lives. The event amplified the vulnerability of our contractor safety management systems even while dealing with reputed contractors known for their expertise and practices. It has taught us important lessons and raised an alarm to implement systemic changes. Our operations are strengthening implementation of safety performance standards to avoid such unfortunate incidents in future. We have also developed and rolled out Crane and Lifting Performance Standards.

Another important aspect is ensuring that lessons from incidents are institutionalised across the businesses and repeat incidents are eliminated. To this effect, we ensure that each subsidiary company's Chief Executive presents a detailed appraisal of critical incidents along with root causes and mitigative action plans to the Sustainability Committee. Through Corporate HSE, we have started tracking 'sign off' from Chief Operating Officers on lessons learnt from High Potential Incidents (HIPOs).



We maintained our focus on containing impacts on air, water, waste and tailing related risks, to achieve our targets on saving water, energy, and recycling waste during the year. Our businesses have met many of their goals, but few remain unconquered, where we missed the targets. Our focus is to boost those businesses, by actively working on the root causes of their failure.

We are using the Vedanta Sustainability Assurance Programme (VSAP) as our internal tool to monitor implementation of the Vedanta Sustainability Framework. The follow up audit processes, include the review and implementation of action plans for each of the businesses, operational sites and mines have put in place, evaluation of objectives and programs in line with our framework requirements and monitoring performance at regular intervals, with emphasis on close out actions from past audits.



Contribution of our businesses to Sustainable Development Goals (SDGs) is another important dimension which calls for immediate deliberation and action. The Committee reviewed preliminary assessment of priority Sustainable Development Goals and has advised detailed interventions with appropriate action plan/road map for the priority SDGs at Group level.

We are using the Vedanta Sustainability Assurance Programme (VSAP) as our internal tool to monitor implementation of the Vedanta Sustainability Framework. The follow up audit processes, include the review and implementation of action plans for each of the businesses, operational sites and mines have been put in place.

#### Sustainability Committee Activities during the Year

Area of Responsibility	Description		
SUSTAINABILITY	Review progress made on the development of the sustainability model and framework		
FRAMEWORK	Review the implementation of action plans emerging from the Vedanta Sustainability Assurance Programme (VSAP)		
	Review & approve sustainable development objectives and targets		
	Review & approve sustainable development initiatives, charters and partnerships		
	Review progress on Sustainability Issues raised during AGM 2016		
HEALTH &	Review of Group safety incidents and performance		
SAFETY	Overseeing the implementation of action plans with respect to fatal accidents		
	Review of Occupational Health & Safety interventions		

#### **ENVIRONMENT**

- Review the Group's initiatives for reduction in specific water and energy consumption
- Review progress on development of Carbon Policy, Strategy and Action plan under the aegis of the 'Carbon Forum'
- Review of action plans for improvement of KCM's environmental performance

#### SYSTEM DEVELOPMENT & PERFORMANCE REPORTING

• Review of performance evaluation of the Sustainability Committee and review of terms of reference

#### COMMUNITY RELATION & ENGAGEMENT

- Update on Sustainable Development Goals and UK Modern Slavery Act
- Review of important stakeholder engagements



The Sustainability Committee is determined in the journey of achieving 'Zero Harm'. We have progressed over the years and will continue to make ourselves a safer and a better company.

#### **KATYA ZOTOVA**

Chairperson, Sustainability Committee

More details on the activities of the committee can be found on our Sustainability microsite.

## **Managing our Risks**



As a global natural resources organisation, our businesses are exposed to a variety of risks. It is therefore essential to have in place the necessary systems to manage these risks, while balancing the relative risk reward equation demanded by our stakeholders.

Our risk management framework serves to identify, assess and respond to the principal risks facing our business and is designed to be simple and consistent and provide clarity on managing and reporting risks to the board. Our management systems, organisational structures, processes, standards and code of conduct together form the system of internal control that governs how we conduct the Group's business and manage the associated risks

Risk management is embedded in our critical business activities, functions and processes. It helps Vedanta meet its objectives through aligning operating controls with mission and vision. The effective management of risk is critical to support the delivery of the Group's strategic objectives. The framework helps the organisation meet its objectives through alignment of operating controls to the mission and vision of the group.

#### **Governance**



🖈 | SDG

The Group recognises the importance of identifying and actively managing the risks facing the business. We want our employees to feel empowered to take advantage of smart opportunities and we want them to do so within the risk appetite set by the Board. It is therefore important that we have a robust governance framework in place to facilitate this.

We use this framework to identify and assess emerging risks at all levels in the organisation so that we can take action to effectively manage these risks. Materiality and risk tolerance are key considerations in our decision-making. The responsibility for identifying and managing risk lies with all the managers and business leaders of the group.

The Board of Directors has the ultimate responsibility for management of risks and for ensuring the effectiveness of internal control systems. Such a system is designed to manage rather than eliminate the risk of failure to achieve business objectives, and provides reasonable and not absolute assurance against material misstatement or loss.

OUR APPROACH IS
INTENDED TO PROVIDE
THE STRUCTURAL MEANS
TO IDENTIFY, PRIORITISE
AND MANAGE THE RISKS
INVOLVED IN OUR
ACTIVITIES IN ORDER
TO SUPPORT OUR VALUE
CREATION OBJECTIVES.

# SAFETY & OCCUPATIONAL HEALTH

As a natural resources organisation, human capital is at the core of our business. Our employees are key to our success and sustainability. Their safety and well-being is our prime responsibility.

We work in remote locations and are aware of the many occupational risks inherent to our industry. We remain committed to an injury-free, illness-free and healthy workplace. Safety and well-being of our employees is an integral part of our decision making and the top priority in

Our health and safety approach is guided by Group Safety Standard which applies to all Vedanta business units and managed operations.

**STRICT ADHERENCE TO OUR SAFETY PERFORMANCE** STANDARDS AND ADOPTION **OF ZERO-TOLERANCE TOWARDS SAFETY LAPSES** HAS BEEN OUR PRIME FOCUS IN THE REPORTING YEAR.

#### SAFETY PERFORMANCE HIGHLIGHTS



Identification and mentoring of young professionals for driving next level safety at Vedanta

Over the years, the effectiveness of our safety systems has steadily improved. And while we still experience unfortunate incidents of fatalities, the high incidents ratio has come down; resulting in less fatal accidents and lower LTIFR.



**Safety training hours** increased by 32% to

man-hours

frontline leaders trained under the **MBRD** programme

employees and contractors

Raageshwari Gas Terminal

crossed the safety milestone of

LTI-free man-hours

**Z** million

trained on risk-based decision making at KCM

The learnings from these incidents have made us more rigorous towards assessing hazards. WE ARE NOW MORE METICULOUS IN EVALUATING JOB RISKS, TRANSLATING RISK MITIGATION PLANS INTO PRACTICE AND IMPLEMENTING THE

ZERO HARM CULTURE

#### **ZERO HARM CULTURE**

We believe that all injuries are preventable. Creating and maintaining a Zero Harm Culture is our aim as well as our call to action. To translate this vision into an effective safety strategy, we have a comprehensive HSE policy in place. The goal is to embed safety as a value and the task is helmed by our senior management.

Our Chairman as well as our CEO fiercely advocate Zero Harm Culture by personally engaging with employees on a regular basis and deliberating the safety improvement opportunities. Our senior management takes responsibility for leading our safety strategy and communicating it across the workforce.

**SAFETY & OCCUPATIONAL HEALTH ARE ONE OF THE CORE AREAS OF DISCUSSION DURING EVERY VIRTUAL TOWN** HALL MEETING CONDUCTED BY OUR CHAIRMAN. MR. ANIL AGARWAL.

For a culture of safety to gain permanence, it needs to permeate across every level of the organisation. This year, we continued to enthuse, educate and encourage every member of our workforce to embrace safety wholeheartedly as a value and line managers were made accountable for that. Safety & Occupational Health is a mandatory module in our induction and refresher training programme and periodic workshops are conducted to enhance safety awareness and knowledge among employees and

**IN ORDER TO MAKE SAFETY** A 'MUST HAVE' INSTEAD OF A 'GOOD TO HAVE', WE HAVE **DIRECTLY LINKED EMPLOYEE REMUNERATION** TO THE PROGRESS ON **IMPLEMENTATION OF SAFETY PERFORMANCE STANDARDS AND PREVENTION OF FATALITIES.** 

Our Board-Level Sustainability Committee (chaired by the Board's senior independent director) and our Executive Committee (chaired by our CEO) regularly review our safety performance and share recommendations. Safety & Occupational Health are prime elements of the Vedanta Sustainability Assurance Programme.

We have Health and Safety Committees across Group Companies. These committees comprising members from the management as well as unionised workforce operate at the company, unit and sub-unit level depending on the locations & businesses. These committees meet at regular intervals and ensure that the programmes work in accordance with our established Sustainable Development Model and Framework. In case of operations where unions have not been formed, we have setup a monthly meeting mechanism that involves principal contractor and sub-contractors to discuss specific HSE issues. 100% of our total workforce is represented in formal joint managementworker health and safety committee.

Health and safety topics are also covered in the formal agreements with

**THERE IS BROAD CONSENSUS THAT EMPLOYEES AND** THE UNION WILL SUPPORT **OUR BUSINESS IN CASCADING MEASURES AND INITIATIVES** FOR IMPROVING PRODUCTION /PRODUCTIVITY. WORK **CULTURE, QUALITY & SAFETY.** 

#### Implementation of **Safety Performance Standards**



Last year, we initiated our first step towards elimination of critical hazards by identifying six types of them that account for approximately 75% of lost time incidents and grouped them under one common protocol: Group Safety Performance Standards.

The six critical areas identified were

WORK AT HEIGHT | ISOLATION | ELECTRICAL SAFETY | GROUND CONTROL | CONFINED SPACE ENTRY | VEHICLES & DRIVING. THIS YEAR WE INITIATED A SEVENTH SAFETY PERFORMANCE STANDARD (SPS) ON CRANES AND LIFTING.



In addition to the seven specific standards, we have two Technical Standards that govern Occupational Health Management and Safety Management in a broader context.

In the reporting year, focus was laid on the stringent implementation of SPS protocols across our businesses. The challenge was not only to introduce the safety standards but also to sustain them across the year.

We have made major progress towards embedding SPS across the businesses through rigorous training drives, monthly meetings, inclusion and ownership of top management into the safety assessment and mitigation, incorporation of safety alert mechanisms, interactive media, easy accessibility to HSE dashboards and metrics, deployment of safety materials and PPEs, regular communication between the management and workforce, and regular safety audits.

## REAL-TIME INCIDENT REPORTING

**CAIRN O&G BUSINESS** 

We believe that there are two factors that differentiate us in the natural resources industry:

#### OUR HUMAN RESOURCES AND HOW WE LEVERAGE INNOVATION AND TECHNOLOGY TO ENHANCE END PRODUCTIVITY.



This year, we introduced a number of initiatives to embed technology into the safety management process.

Prime amongst these, is the online and real-time incident reporting mechanism we have in place. The LogChief, the digital Geological Logging Platform, helps us identify and ascertain any reportable incident before it takes a more catastrophic proportion. Data is made available to exploration & production managers in real time to enable efficient decision making and ensure immediate action and closure of any potentially hazardous situation. Work is also afoot to introduce a live safety dashboard that will be accessible across hierarchies - from line managers to the senior management team.

# Our Safety Performance



SDG3. SDG6

We report our safety performance as per ICMM guidelines. We marked an overall declining trend in injury rates with the Group's Lost Time Injuries reducing from 103 in FY 2015-16 to 75 in FY 2016-17. With LTIFR of 0.39, FY 2016-17 ranks as our best year so far in terms of an overall safety performance.

At Vedanta, we believe that a healthy workforce is a more alert and productive one. To promote the overall well-being of the employees and as a precautionary measure, all our sites conduct Initial Medical Examinations (IME) and Periodical Medical Examinations (PME) for both permanent employees and contract workforce. We have also started capturing the injury statistics pertaining to the visitors and truck drivers etc., and initiated their medical examinations.



Health & Safety of the workforce is core to all our operations.

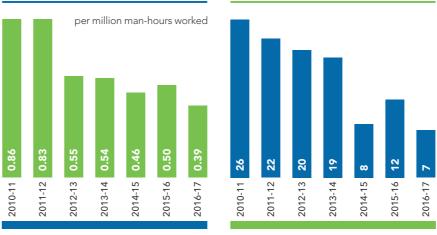
All our sites have a fully-operational and professionally manned Occupational Health Centres (OHCs). In addition to IME/PME for all our employees, the OHCs also provide facilities like first aid support, OPD facilities, and conduct various health camps to create awareness on health aspects and potential diseases.

Continuous work zone monitoring is carried out to ensure a safe and healthy workplace for the employees. Several initiatives like bag filters, dust monitoring, dust suppression, fugitive emission reduction, proper storage of hazardous chemicals/substances are incorporated to safeguard their health.

## WE CONTINUE TO UPHOLD THE WASH PLEDGE BY PROVIDING ADEQUATE ACCESS TO SAFE DRINKING WATER AND SANITATION FACILITIES TO OUR WORKFORCE ACROSS ALL SITES.

Apart from physical safety, we also undertake concentrated trainings on stress management and ergonomics to foster an environment of holistic employee well-being. All these interventions not only help in creating a clean workspace but also assist in maintaining the health of the employees. This year we paid US\$ 27,000 as a penalty for technical non-compliance with the Factories Act. During the reporting period, we didn't observe any significant / major occupational diseases at our operating sites.

#### LTIFR \*



**FATALITIES** 

 $\star$  In 2015-16, we revised our calculation definition in line with the revamped ICMM guidelines and reset the baseline. Thus, LTIFR for that year was revised from 0.46 to 0.50.

# Although we succeeded in reducing the number of fatalities, it is still a performance that is unacceptable to us and is a matter of great concern and regret for the entire Vedanta group.

AN IN-DEPTH REVIEW OF EACH OF THESE INCIDENTS HAS BEEN CARRIED OUT TO ANALYSE WHAT WENT WRONG.

A Root Cause Analysis has been conducted by the top management of the respective businesses and the results have been shared with the Board's Sustainability Committee to initiate appropriate action plans to prevent such incidents in future

Incident Type	Prevention / Action	0.5
Four third party contract workers were fatally injured from the collapse of a 250-ton crawler crane.	Reinforce our permitting systems and management oversight. Also rolled out seventh safety performance standard on Cranes & Lifting.	
One fatal accident each was related to blasting and working underground.	Effective reinforcement of safety performance standards for blasting procedures and underground safety have been ensured through regular monitoring. Reward and recognition initiatives have been carried out for increasing safety ownership among the employees.	A high or nea other catastr
One fatal accident was related to vehicles and driving.	Strict adherence to the implementation of safety performance standards through periodic audits. Motivational reward and recognition programmes were initiated to cultivate safety accountability across the workforce.	incide we sha their re we rec each fo promo



A high-potential (HIPO) incident is an incident or near-miss that, realistically, could have under other circumstances caused one or more catastrophic injuries. Awareness of HIPO incidents is a key factor in preventing them and we share the learnings of HIPOs to prevent their reoccurring at other sites. During the year, we recorded a total of 117 HIPO incidents, with each fully investigated and the lessons learned promoted across all businesses.

# Institutionalising Zero Harm Culture



Best safety performance can only be achieved through precise execution of the safety practices and solutions. When one factors-in the dynamic work environment, safety improvement becomes a continuous process. Throughout the year, across business units and through a diversity of interventions, we pursued safety with rigour. Some of such initiatives are illustrated below:

#### **Understanding the Risk**



Identifying Critical Risks is imperative to strengthen risk-based decision making and to initiate remedial actions.

Several identification exercises were carried out to have an in-depth understanding of the real challenges on ground.

## PREVENTING FATALITY, SYSTEMATICALLY

HZL

The Fatality and Serious Incident Preventions Programme (FSIPP) commenced at HZL with an aim of dealing with critical risks, identifying their preventive measures and analysing the effectiveness of these mitigative steps.

This initiative enables risk prioritisation and identification of barriers to eliminate them.

## All smelters and mines have identified high risks and ranked the same to ensure safety ownership.

Thus, accountability for managing risk through the barriers is defined. Periodic audits are conducted to monitor the robustness and adequacy of these barriers.

#### **CHINGILILA PROGRAMME**

KCN

IN ORDER TO STRENGTHEN ZERO HARM CULTURE AND IN RESPONSE TO SERIOUS ACCIDENTS, THE CHINGILILA PROGRAMME WAS INTRODUCED IN KCM IN SEPTEMBER 2014. CHINGILILA IS A BEMBA WORD MEANING 'PROTECT' - AN APT SAFETY MESSAGE.

During the reporting period, to strengthen the mission to protect, a six-month intensive and holistic programme was introduced, under which

#### **25** Mine Captains

designated as safety champions were instructed to regularly visit every working area to improve the safety awareness at the site and workplaces.



The Chingilila programme goes beyond imparting training. Following initiatives are testament of the holistic nature of the Programme:

112 KCM safety procedures have been revised to incorporate risk assessment principles in all the safety procedures

Ten Cardinal Rules of Safety have been introduced to highlight the ten primary risk at KCM

The role of the safety department was restructured to focus on coaching of supervisors on safety issues. With the assistance of the senior management at KCM, the purview of safety department was extended to managing the cost audits with the assistance of senior managers.

An internal auditing course to empower managers in effectively handling the safety issues at their respective workplace.

A dedicated safety investigation unit has been established to ensure that all safety incidents and accidents can be investigated with greater focus on prevention strategies.

The design and implementation of the Chingilila Safety System at KCM has triggered significant improvements in the safety performance and has fast-tracked progress towards our Zero Harm vision.

# DYNAMIC LEADERSHIP IN SAFETY ROLES GROUPWIDE

Our Global HSE team comprises 365 professionals and, as an effort to promote leadership amongst HSE function, 22 dynamic leaders across the businesses were identified through a structured process for higher level of challenges and growth.

In these roles, they are being mentored by our leadership team and are provided with experience of being part of the various high level HSE - centric meetings. We envision that with the right guidance, these professionals will drive the next level of safety performance at Vedanta.



We mentor young leaders to drive safety performance.

Moreover 11 project teams consisting of members from diversified functions across the business has been assigned an objective related to

'HSE improvement' or 'HSE enabling' work streams.



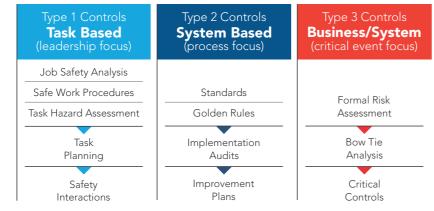


#### INITIATIVE

#### MAKING BETTER RISK DECISION (MBRD) PROGRAMME GROUP WIDE

To enable cognitive solutions to the challenges, different sections of the workforce were empowered with knowledge through proper training based on their role and scope of operation. Last year, we piloted the MBRD programme - a combination of classroom and practical on-ground sessions, to empower line leaders to make better decisions by foreseeing the risks relevant to their routine and non-routine work profile, and understanding the consequences associated with these risks.

We have a structured review mechanism to ensure identification, analysis, mitigation and monitoring of safety risks on a continual basis. Our key areas of risk and their mitigation levers can be summarised as follows:



DURING THE REPORTING PERIOD, 320 FRONTLINE LEADERS ACROSS THE BUSINESS WERE TRAINED UNDER MBRD PROGRAMME. WE AIM TO EXTEND MBRD TRAINING TO 50% OF EMPLOYEES ACROSS ALL BUSINESSES BY 2020.

#### INITIATIVES

#### **DRIVING SAFE**

LIFTING RIGHT

STERLITE COPPER

GROUP WIDE

Our remotely located sites, involve extensive amount of driving. Considering the fact that we had a driving related fatality this year, special emphasis was given to ensuring driver safety by various businesses: Sesa Iron Ore in association with Institute of Road Traffic Education (IRTE), introduced a training programme on Defensive Driving for truck drivers who are engaged in the transportation of Iron Ore. The assessment of tests conducted for the drivers prior to and after the training confirmed that there was considerable enhancement in the drivers' knowledge and perception about road safety. Our HZL plant has set up an in house store for the purpose of renting Personal Protective Equipments to the drivers. The safety stores have been very effective in encouraging drivers, both new and old, to take and use standard PPEs in the plant.



Safety remains our core value in operations

# Single Point Accountability (SPA) is one of the driving forces of Safety management systems at Sterlite. Among our SPA protocols, 'Lifting Tools and Tackles' is a unique SPA, with greater emphasis on safe rigging practices, and proper usage of appropriate tools and tackles. In our continuous pursuit to make Vedanta the safest place to work, we introduced 'Centralisation of Lifting Tools and Tackles' - the first such initiative in Vedanta Group. The focus of this intitative is

to provide proper handling, storage and tracking of such lifting tools and tackles before and

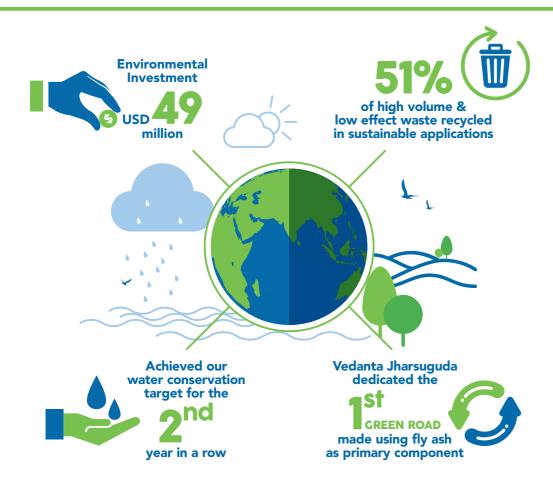
after use. These tools and tackles are periodically certified by a competent person.

# STEWARDS HIS STEWARD HIS STEWARDS HIS STEWARDS HIS STEWARDS HIS STEWARDS HIS STEWARD HIS STEWARDS HIS STEWARDS HIS STEWARDS HIS STEWARDS HIS STEWARD

SDG7, SDG12

Most of the basic and modern ammenities we cherish, contain natural resources as a core ingredient. Extraction of these resources becomes necessary to sustain life. Across the globe, best practices with modern technology ensure that while we meet the growing needs of the nations, we conserve biodiversity and the surrounding environment.

AS A DIVERSIFIED NATURAL RESOURCES COMPANY WITH A GLOBAL FOOTPRINT. WE CONTINUE OUR ENDEAVOUR TO MINIMISE AND MITIGATE THE PRESSURE ON ENVIRONMENT AS A RESULT OF **OUR OPERATIONS. WHETHER IT IS OPTIMISING THE WATER CONSUMPTION, ENHANCING ENERGY** PRODUCTIVITY, SAFEGUARDING BIODIVERSITY, MAINTAINING AIR QUALITY OR RECYCLING AND UP CYCLING WASTE, WE HAVE THE SYSTEM AND, MORE IMPORTANTLY, THE INTENT.



#### **APPROACH**

We understand the needs of the environment by engaging with our partners and the neighbouring communities at project sites. Through a systematic and process-oriented approach, underpinned by the spirit of entrepreneurship, we are mitigating adverse environmental impacts while creating value for our stakeholders and maintaining the social licence to operate.

Our Sustainable Development Framework comprises comprehensive policies, standards and guidance notes to rigorously manage environmental impacts. For the environmental priorities arising from the materiality process, we have developed specific objectives and targets, and review performance against these issues on a periodic basis. We are working towards implementing our Biodiversity Action Plans and are also finding new and innovative ways to reduce and recycle waste from our operations including fly ash, red mud, phosphorous gypsum, copper slag, etc.

#### **ALL OUR OPERATIONAL SITES ARE NOW ISO 14001 CERTIFIED**

Environmental and Social Impact Assessments (ESIA) process carried out for all new projects

- Environmental Management Systems (EMS) Assessments set up for every existing operations
- Environmental incidents monitored
- Internal assurance assess compliance
- Monitoring, reporting and investigation of environmental incidents
- Alignment to ISO 14001 and ISO 50001 standards to monitor effectiveness of

#### **REVIEW & AUDITS BY BOTH BUSINESS AND VSAP TEAMS**

During the reporting period, KCM and other mining companies discharged water from their operations releasing water from the tailings dam is a usual practice to ensure safety of the dam. On this occasion the releases resulted in a complaint from the local water department against all the concerned mining companies. KCM is working closely with the regulators and other stakeholders to develop and implement alternate satisfactory solutions.

#### **WATER**

**⊀** | SDG12

For the natural resource industry, securing an adequate water supply continues to remain a key challenge. We address the key challenge of accessing water by using the resource more judiciously and through recycling and reuse.

#### **Approach**

We have a water policy and a water management standard that integrates with decision-making processes for all our new and existing projects; thereby ensuring that necessary measures are in place to avoid or minimise the impacts of our projects.

Our operations are located in geographies with varying water stress, and our water management plans take them into consideration. In some areas like Rajasthan which are quite dry and arid, we have implemented water conservation projects to achieve a zero-discharge status. For operations that are not located in waterstressed areas like KCM, CMT etc., we spearhead initiatives to conserve water and preserve water quality.

#### REDUCE

Aluminium business at BALCO has reduced it's specific water consumption from 2.3 to 1.3 last year, saving 0.32 mn cubic meter of water. Initiatives taken are:

Installation of orifices in pipelines to reduce water pressure and flow.

Internal reuse of the process water to minimize waste water generation.

Use of ETP treated UF-RO water for cleaning and process like rodding, Bakeoven process to minimize freshwater

With optimal use of UF-RO water, the business expects further reduction in the specific water consumption.

#### **REUSE/RECYCLE**

Our Oil and Gas business has improved its water recycling ratio from 66 % in FY-16 to 82% in FY-17. All our units in Rajasthan are Zero-Discharge operations. Some of the initiative taken during the year are:

Utilizing the pit water for the operation.

The Reed wastewater system helped in water and energy conservation due to non-use of electrical energy in treating the wastewater.

Installation of the Reed based wastewater treatment system and reuse it back in the process.

**OUR CAIRN OIL & GAS BUSINESS** IS MEETING

OF ITS TOTAL WATER

**REOUIREMENT THROUGH** RECYCLED WATER

#### **REPLENISH**

Groundwater recharge structure, measuring 1,200 sqm, developed in Township Hospital of Chanderiya Lead Zinc Smelter with a potential to conserve 900 m<sup>3</sup> of rainwater per year under normal rainfall condition.

Deepening of nine water ponds in the neighbouring villages of Sindesar Khurd Mine, resulted in increased water holdup

**2,77,575**<sub>m</sub><sup>3</sup>

#### **Performance**



#### Consumption & Conservation Snapshot

	FY 2016-17	FY 2015-16
Total Water Consumption	277,609,052	236,833,021
Water Recycled / Reused	66,813,316	53,626,679

WE RECYCLED 24% WATER IN FY 2016-17

This year, we achieved

water savings against the targeted savings of 2.26 million m

#### **ENERGY & CARBON**

**∦** | SDG7

Climate change poses a real and credible risk to our way of life on this planet. Managing it calls for collective efforts on mitigation and adoption of innovative technologies.

Vedanta acknowledges the global concern on climate change and recognises that concentrated and sustained global actions are required to manage the scale of the problem and to adapt to its impacts. Our operations are mostly located in developing countries where growth of the country and human indices are dependent on reliable and affordable coal based power.

#### **Approach**

The energy and carbon scenario is a continuously emerging one. Post COP 21, countries across the globe have committed to implement their National Determined Contribution (NDC) towards minimising the climate change impact. Our Sustainable Development Framework includes an Energy and Carbon Policy, and Energy and Carbon Management Standard.

We are aware that global concern on climate change can bring regulatory changes, introduction of implicit and / or explicit carbon taxes in the host countries we operate in. This along with evolving behaviour of the environmentally conscious consumer are some of the factors that may affect our business operations - positively or detrimentally. In view of this, we have revised our Carbon Policy and developed a full fledged Carbon strategy for the group.

Our energy and carbon management hinges on a two-pronged approach: improving energy and process efficiency, while diversifying our energy portfolio to include renewable energy to the extent possible. We are committed to invest in newer technologies and processes to enhance our energy efficiency.

WE ARE COMMITTED TO THE CAUSE OF CLIMATE CHANGE AND CONSTITUTED CHIEF OPERATING OFFICERS (COO'S) FORUM FROM THE BUSINESSES TO ADVISE GROUP EXECUTIVE COMMITTEE ON CLIMATE CHANGE MANAGEMENT PROGRAMME.

#### The Carbon Strategy

While developing the Carbon policy and Strategy, we took inputs from our stakeholders. Our focus is to adapt to the impact of climate change. The strategy is to work on the water, energy and waste management practices to minimise the climate change impact to the business. We are also working with our community in spreading awareness on the climate change, water management, sustainable agriculture and methods that support communities in becoming adaptable to potential climate impacts.



Bhogat Terminal, Gujarat - Cairn Oil and Gas business

We are evaluating options of formulating internal carbon price suitable to the business and expect to complete this exercise soon. The challenge is Company's presence in multiple commodity businesses like metal, mining, oil & gas, power, port etc.

Vedanta is committed to this effort through its own progressive energy and carbon programme that forms an integral part of our vision for sustainable development and is consistent with our business goals.

WE ARE COMMITTED TO IMPLEMENT THE CARBON POLICY THROUGHOUT OUR BUSINESSES. WE ARE CONSIDERING FORMAL GHG REDUCTION TARGETS AND EXPECT TO ACHIEVE UP TO 16% REDUCTION IN CARBON INTENSITY FOR THE BUSINESS BY 2020 FROM A 2012 BASELINE.

16 OUT OF OUR 47 OPERATIONS ARE ISO 50001 CERTIFIED

#### **Performance**

#### **DIRECT & INDIRECT ENERGY CONSUMPTION**

in million GJ

	FY 2016-17	FY 2015-16
Direct Energy Consumption	413.39	394
Indirect Energy Consumption	14.61	11
Total Energy	428	405

GHG	<b>EMISSIONS</b> -	GROUP WIDE
0110		CINCOL MIDE

in tons of  $CO_2$  equivalent

	2 - 1	
	FY 2016-17	FY 2015-16
cope 1 (Direct)	51,896,907	39,581,088
cope 2 (Indirect)	1,432,665	1,567,605

We calculate and report the Greenhouse Gas (GHG) inventory i.e. Scope 1 (process emissions and other direct emissions) and Scope 2 (purchased electricity) as defined under the World Business Council for Sustainable Development (WBCSD) and World Resource Institute (WRI) GHG protocols.

The increase in energy consumption GHG emissions is due to ramp up of our aluminium and power plant business. While GHG emission has increased the GHG intensity for the business has reduced about 8% over FY12 as the base year.

#### **Energy Efficiency**

In the reporting year, we focussed more in raising awareness about the need for energy efficiency and putting in place an infrastructure that would conserve energy across its lifecycle. We envision that by enhancing awareness, the change effected will be more impactful and longer-term:



Hindustan Zinc office became Rajasthan's first Platinum Green Building.

Sustainable usage of natural resources is key to preserving resources that can be available for future generations. In August 2016, Skorpion Zinc conducted a Sustainability Awareness Campaign at Rosh Pinah Academy school for students studying from grade 1 to 5. The campaign focussed on the importance of energy and water conservation measures.

A total of 60 learners and 5 teachers were involved in the campaign.

In December 2016, TSPL launched Club Urja, an initiative that seeks to promote energy efficiency and conservation through Awareness, Education and Engagement.

#### The initiative seeks to involve 100,000 stakeholders,

including students, teachers, housewives, farmers and other significant consumers of electricity, as well as academic institutions, NGOs, Govt. Departments and Press clubs, within three years.

Hindustan Zinc office at Udaipur became Rajasthan's first Platinum Green Building.

#### It achieved energy savings by 27% and water use reduction by 37%.

On-site renewable energy of 100 kWp is installed that would generate 162,000 units every year, offset 15% energy requirement by Renewable Energy. This is in line with our short and long-term GHG intensity reduction target.

#### **Clean Energy**

In addition to optimising our energy consumption, we are also looking at diversifying our energy portfolio. Mindful of the long-term impact of traditional grid-energy, we are evaluating renewable energies like solar and wind.

# MAKING ENERGY WHEN THE SUN SHINES

THE INDIAN GOVERNMENT UNDER THE LEADERSHIP OF MR. NARENDRA MODI, HAS A STRONG FOCUS ON NON-CONVENTIONAL ENERGY SOURCES AND IS LOOKING TO ULTIMATELY PRODUCE 100 GW POWER FROM SOLAR ENERGY.

In view of this, HZL in Rajasthan set an ambitious target of generating

# 115 MW of Solar Energy

in the short-term and scale up solar energy as a business arm in the years to come. In the first phase, we have set up a 16 MW solar energy project at an investment of INR 800 million commissioned in March 2017.

Out of 16 MW, 12 MW solar power project installed at Zinc Smelter.

The 4 MW solar power project at Rajpura Dariba of Hindustan Zinc in the district of Rajsamand in Rajasthan.

The 12 MW project is the largest solar energy project in the district of Udaipur (both the projects are installed on waste land parcel, where no other activity could be done).



We focus on putting in place infrastructure for renewable energy

#### **BIODIVERSITY**

⊀ SDG15

Considering the number of sectors dependent on natural products, loss of biodiversity must be seen as an economic as well as an environmental loss. Being a responsible natural resources company, we actively follow the 'no-net-loss' principle and protect or rejuvenate the biodiversity.

Protecting the biodiversity is an integral part of Vedanta's commitment to sustainable development. Our Biodiversity Management Programme is developed to avoid, minimise or compensate the loss of the biodiversity attributes resultant to the new project or the major expansion. We undertake Environmental Social Impact Assessment (ESIA) assessment for any new project or major expansion to help us understand the presence of critical biodiversity attributes in the proposed area of the project and develop biodiversity action plan to mitigate the impact of our operation on the same.

#### **Approach**

We have a dedicated 'Biodiversity Policy and Management Standard' in line with international standards and guidelines of International Finance Corporation (IFC). It advises how disruption is to be avoided, minimised and compensated for, from project scoping to site closure and beyond.

Our policy, technical standard and approach to biodiversity management is aligned to IFC standards and ICMM guidelines. Our businesses seek consultation from domain experts in identifying biodiversity related business risk and management of the same.

None of our operations are located in world heritage sites. However, our Black Mountain Mine operations spread across approx. 38,000 ha in South Africa and Skorpion Zinc mine covering approx. 8,000 ha in Namibia are located in key biodiversity hotspot areas as identified by Conservation International (CI). Both these operations are governed by robust Biodiversity Management Plans which have been developed by regional biodiversity experts.

VEDANTA RESOURCES IS
A SIGNATORY TO THE INDIA
BUSINESS AND BIODIVERSITY
INITIATIVE, A NATIONAL
PLATFORM FOR BUSINESS
AND ITS STAKEHOLDERS
AROUND MAINSTREAMING
SUSTAINABLE MANAGEMENT
OF BIOLOGICAL DIVERSITY
INTO BUSINESS STRATEGY.

#### **Revitalising Ecologies**

Several initiatives are undertaken by us at Vedanta to rejuvenate the biodiversity of the locations we operate in. Some of them are:

#### INITIATIVE

#### RESPONDING PROACTIVELY TO THE BIODIVERSITY RISK

**GAMSBERG, SOUTH AFRICA** 

The Gamsberg mine is located in the Succulent Karoo Biodiversity hotspot area - one of the four hotspots in South Africa and one of the 35 hotspots in the world. This area is home to more than 6,000 species of plants, (40% of which are only found here) and also hosts 250 birds, 80 mammals and 32 reptile and amphibian species. Although the Gamsberg mine promises to reap rich economic returns, we have taken multiple steps to ensure that this doesn't come at the cost of biodiversity:









EMP (Environmental Management Programme) and BMP (Biodiversity Management Plan) are used to monitor and to guide the construction phase, so that the Environmental footprint is minimised

Continuous harvesting is done in the current mining footprint area

The plant species will be used during the rehabilitation of the mine as it demonstrates vast species from the Succulent Karoo Biodiversity Hotspot

A thorough search and rescue operation in mining footprint area, led to harvesting of 10,810 plants. An additional 59,257 and 17,959 plants were harvested in 2015 and 2016 respectively and significant discoveries were made in the tailings facility

#### **AIR QUALITY**

**∦** | SDG12

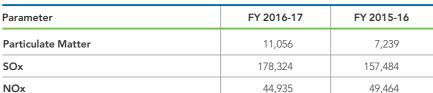
Clean air is essential to maintaining the delicate balance of life on this planet - not just for humans, but wildlife, vegetation, water and soil. At Vedanta, we are committed to identify and manage emissions to air from point sources and from process activities associated with combustion.

As part of our ambient air quality monitoring process, we monitor Particulate Matter (PM), SOx and NOx. We also monitor lead emissions from our zinc operations, fluoride emissions and Polycyclic Aromatic Hydrocarbons (PAHs) from our aluminium operations as per our Environmental Management Standard. We do not record emission of ozone-depleting emissions as this is not a material issue to our operations.

#### **Performance**



in



\*There was a misprint last year in the values of NOx it was reported as 55,975 MT. The actual values are mentioned in the table

We continue to maintain a keen eye on our air quality management outcomes, through following steps:

Good Management Practices (GMPs) and pollution control techniques like bag houses Electrostatic Precipitators (ESP)

Controlling and monitoring stack emissions of particulate matter at most of our operations

Dust minimising processes like bag filters, scrubbers and dry fog systems with water sprinklers are used while transporting extracted materials like bauxite, coal, lime and alumina. Covered trucks with tarpaulin ensure no spillage or dust generation

There was a 13.23% increase in SOx and 52.72% increase in particulate matter emissions due to 32.79% increase in production in our Aluminium businesses. This year we have observed reduction in NOx emission because of the optimum utililisation of NOx burners installed at our

power plants.

Our power plants run on coal which leads to particulate and other emissions resulting from naturally occurring impurities in the coal. We have deployed hybrid ESP for removal of particulate matter that also contributes to removal of other impurities attached to the particulate matter.

The fly ash, a by-product from the ESP, is reutilised in making cement bricks and roads or is disposed of at authorised ash ponds in accordance with the local regulatory requirements.

#### INITIATIVE

#### INNOVATION & PROCESS IMPROVEMENTS FOR ZERO EMISSIONS

RDG, BARMER

The Raageshwari Deep Gas (RDG) field in Barmer Basin has excellent gas quality with low CO<sub>2</sub> and no H<sub>2</sub>S. But hydraulic fracturing treatment is required for the recovery of oil and natural gas due to RDG's thinly laminated volcanic layer.

During the reporting period, our Cairn Oil and Gas Business adopted improvement in Frac Design like propant density, tighter spacing, multiple fracs, and introduced innovations like Addressable Switch Firing System innovative methods to

achieve nearly zero emissions during well testing and clean-up activities.

This resulted in reduced operating cost by USD 0.96 million.



Raageshwari Gas Terminal, Barmer, Rajasthan

#### WASTE

Waste generation for the natural resources industry is inevitable, but its irresponsible disposal is not. With the right mindset, technology and innovation, there is a tremendous wealth generation opportunity, in addition to the elimination or minimisation of waste.

At Vedanta, two kinds of waste are generated hazardous and non-hazardous. The hazardous waste include used/spent oil, waste refractories, aluminium dross, spent pot lining and residual sludge from smelters, while the non-hazardous (high volume, low effect) wastes we generate includes fly ash (from captive and merchant power plants), jarofix (from zinc smelting), slag, lime grit (process residues from smelters and aluminium refineries) and phospho gypsum (phosphoric acid plant).

#### **Approach**

Our sustainability framework includes a Resource Use and Waste Management Technical Standard and supporting guidance notes. We follow the principle of first reducing the waste, quantitatively as well as qualitatively (reducing the toxicity), and then performing the recovery and recycle (either ourselves or through authorised recyclers). The last stage is disposal in landfill or by incineration, using authorised, licenced and secured landfills. We aim to remain environment-friendly across all the stages.

#### WASTE TO VALUE INITIATIVE

This is being cascaded across our businesses and is also actively pursued by our Chairman Mr. Anil Agarwal in his town hall addresses.



WE HAVE RECYCLED 51%
OF OUR OVERALL HIGH VOLUME AND LOW EFFECT WASTE IN SUSTAINABLE APPLICATIONS AND ARE CONTINUING TO DEVELOP NEW AND INNOVATIVE WAYS TO INCREASE THE PROPORTION OF WASTE WE RECYCLE.

#### **Performance**

Continuous and consistent efforts on waste recycling are in progress, with special focus of senior management in tracking the waste disposal rate in sustainable applications. Much of our generated waste rock and overburden is utilised in secondary construction work at the units. For example, in raising tailing dam heights, and backfilling mined out areas and exhausted mine pits.

HZL's state-of-the-art Central Research & Development Laboratory continues to explore how to recover more metals from mining & smelting operations, esfficiently to minimise waste.



The total fly ash utilisation increased to in FY 2016-17 from 47% in the previous year.

#### INITIATIVE

#### SETTING THE STANDARDS FOR TAILING RISK MANAGEMENT

In pursuit of a systematic preventive strategy, we undertook a preliminary risk assessment for tailings dams and ash storage facilities across our business, which identified nine of potentially high risk facilities.

These nine facilities were subjected to a detailed Tailings Risk Assessment from third party expert organisation. No critical risks were identified. Where gaps were highlighted, business commenced implementation of corrective actions, including further analysis in two cases to ensure communities in close proximity are not at risk.

management, tailings related risks have been elevated to group risk register and a tailings management workshop has been held for 40 employees across businesses. We have also developed Vedanta Tailing / Ash Storage Management Standard that is being implemented by all businesses.

For governance and ongoing

#### **WASTE GENERATION**

in million MT

Business	FY 2016-17	FY 2015-16
High Volume & Low Effect Waste	16.57	11.90
Hazardous Waste	0.32	0.86

#### HIGH VOLUME & LOW EFFECT WASTE MANAGEMENT

in million M

	Fly Ash	Slag	Red Mud	Gypsum	Jarosite	Total
Generated	11.72	1.66	1.62	1.09	0.46	16.57
Recycled	6.20	0.98	0.13	1.0	0	8.38
%	53	58	9	100	0	51

#### **COLLABORATING FOR SUSTAINABLE WASTE MANAGEMENT SOLUTION**

**KCM - COPPER BUSINESS** 

The Nkana Smelter Complex in Zambia was shut down in 2009. A project to dispose of the expired chemicals through neutralization and solidification was initiated in September 2015 and completed in December 2016. As a result of this project, KCM Nkana is now compliant with the requirements for storage of hazardous waste prescribed in the Eighth Schedule of the Environmental Management (Licensing) Regulations of 2013.

The treatment and disposal of the chemicals involved the following steps:

Seeking approval of Zambia Environmental Management (ZEMA) to conduct the disposal of the expired chemicals

Identification of the site to neutralise and solidify chemicals. The selected site was bunded and concreted to contain any accidental spillages within the bund wall.

Neutralising of chemicals by mixing them with lime. The neutralised material was then mixed with sand and stone aggregates, before adding cement for solidification. Each chemical was treated separately.

The resulting mixture was scooped with shovels and placed in 50kg bags to dry. Dried material was transported to a safe site for disposal.

A total of 1,389 kg powdered chemicals and 6,630 litre of liquid chemicals were treated during this project.

#### MANY ROADS TO PROSPERITY

JHARSUGUDA ALUMINIUM BUSINESS

The road to prosperity can be paved with materials that may seem of lesser value. In order to create greener solutions for infrastructure development, Vedanta made use of multiple 'wastes' to create 'wealth':

In August 2016, Vedanta Jharsuguda dedicated the first 'Green Road' made using fly ash. Around 30% of the cement content in the concrete was replaced by fly ash. This is the first village road in the state of Odisha to be constructed using fly ash as a prime component. It is also a successful example of industryacademic interface, as the road was designed by IIT, Bhubaneswar.

S



# LISHEEN MINE - CLOSURE, RESTORATION AND AFTERCARE MANAGEMENT PLAN

Mining activity at the Lisheen Mine in Ireland was concluded in November 2015, with milling ceasing in December 2015 after 17 years of operation. Focusing on physical closure of the mine and aftercare of the site, a best practice mine closure plan has been implemented to fully address regulatory authority permit requirements. The cessation of mining at Lisheen was not the end of the story, as the mine is now in an 'active closure' phase. The closure programme is among the world's finest examples of environmentally sensitive mine closure and rehabilitation. Some socio-economic and environmental initiatives taken by the company to ensure well-being of the community and the environment.

Some of key focus areas of closure plan are:

Ensuring that the underground workings cannot collapse: Leading to surface subsidence

Removing all surface and underground plant and equipment

Allowing the mine workings to refill with clean water

Blocking and sealing all access to the underground workings

Fully engineered covering of the tailings deposition facility to provide multiple after uses from animal grazing to solar power or energy

Creating a space that will be attractive to other industries

Supporting Lisheen staff during the closure, from up skilling and training grants to redeployment at other Vedanta operations

# 360° PROJECT MANAGEMENT

Striking a balance between economic growth and social well-being is intrinsic to the Indian entrepreneur. In India, business-driven social initiatives have existed since centuries, and have resulted in institutions and centres of excellence that have stood the test of time. This concern for holistic growth and development is also ingrained in Vedanta's core values, in the form of Integrity, Respect and Care.

AT VEDANTA, IT IS OUR CONTINUING ENDEAVOUR TO MINIMISE ANY NEGATIVE IMPACT ON COMMUNITIES AND OUR PLANET THAT ARISES AS A RESULT OF OUR OPERATIONS. SUSTAINABLE DEVELOPMENT IS AT THE CORE OF ALL OUR BUSINESS DECISIONS ACROSS EVERY STAGE OF ALL OUR PROJECTS. THE LIFECYCLE OF ALL OUR PROJECTS IS STRICTLY GOVERNED BY OUR SUSTAINABLE DEVELOPMENT FRAMEWORK.

Our Sustainable Development Framework is aligned to international benchmarks such as ICMM and IFC and includes several standards requiring comprehensive impact assessment on environment, social, economic and regulatory fronts. The sustainability standards ensure continuous monitoring and due diligence appraisals in project management, new projects, potential acquisitions, and site closure.

#### **NEW PROJECTS**

For us, a new project is not just a means of adding more value to the shareholders. It is a responsibility to add value to the host countries, their biodiversity and the local communities. This helps us maintain the preferred social license to operate. Prior to developing new projects, we undertake location specific needs assessment studies and analyse the project from its exploration stage to closure, to identify potential impacts and the likely affected parties.

#### **NEW PROJECTS BEGIN WITH STAKEHOLDER ENGAGEMENTS**

Effective stakeholder engagement is key to successful project management. Every project has a systematic process laid down to examine the impending effects due to the variation in demography, local culture, customs and methods of communication. We have standards which imply to Free Prior Informed Consent from indigenous communities prior to the commencement of a project. We liaise with the local communities as early as possible in the project life cycle to identify the unique nature of these challenges, assess them and respond to any potential issues, conflicts or concerns.

To increase the efficiency of our engagement initiatives, we involve community leaders, government representatives or other third-party mediators to enhance the reach and results of our communications and foster greater transparency and trust between the Company and communities.

#### **ASSESSING RISKS AT EVERY STAGE**

Prevention is better than cure; and so is comprehensive risk assessment crucial in averting any undesirable environmental or social impact. Risk screening makes our sustainability framework stronger; and mitigation strategies, more responsive and effective. Environmental and Social Impact Assessments (ESIA) process is followed for all new projects, to help us ensure projects are properly de-risked, and successfully obtain and sustain their license to operate.

These assessments encompass the full scope of sustainability issues including resettlement, indigenous people (vulnerable groups), and significant loss of cultural heritage, human rights,

biodiversity, transboundary/cumulative risks and overall sustainability impact. The ESIA helps identify the communities likely to get affected early in the project cycle facilitating mitigation measures through mutually agreeable solutions.

#### SITES CURRENTLY UNDERGOING EXPANSION

#### HINDUSTAN ZINC LIMITED AND VEDANTA ZINC INTERNATIONAL

#### Rampura Agucha Mine | Rajasthan

The world's largest Zinc mine HZL-Rampura Agucha is also the largest zinc producer in India with a market share of 79.1%. The mine has a current capacity of 1 million tonnes of Zinc-lead. An underground expansion programme has been initiated to increase the production capacity to 1.2 million tonnes per annum. Site exploration will be the primary focus tool for the expansion.

#### Sindesar Khurd | Rajasthan

It is a world-class underground mine with state-of-the-art infrastructure facilities and best-in-class mechanisation. As part of the on-going expansion programme, ore production capacity at Sindesar Khurd Mine will be increased to 6.0mn MT per annum by FY 2018-19. The Environmental Impact Assessment is under progress and Environment Clearance is expected by February 2018.

#### Zawar Group of Mines | Rajasthan

As part of the on-going expansion programme, ore production capacity will be increased to 4 mn MT per annum for which the HZL received an environment clearance this year.

#### Black Mountain Mining | South Africa

The shaft is going to be deepened post relevant risk assessments, increasing the production to 1.6Mtpa of copper and lead ore and 60ktpa to 70ktpa of Metal-in-Concentrate (MIC). Expansion plans are also underway.

#### SITE CLOSURE

Our commitment to the communities extends beyond the closure of the operations. A mine closure is in fact the beginning of a comprehensive and well-designed aftercare process that enriches not only the local communities but also the restoration of natural habitat and ecosystems.

The mutually agreed solutions to the environmental and social risks identified through the Environmental and Social Impact Assessment (ESIA) at the onset of every project also include the Site Closure Plans. Our Sustainable Development Framework includes a Site Closure Standard, which is continually aligned and updated to match the international good practices benchmark.

#### THE AFTERCARE FOR A BETTER TOMORROW | LISHEEN MINES, IRELAND

From its initial discovery in 1990 throughout its planning, construction, operation and now closure, Lisheen Mine has been a world-class operation, implementing the highest international standards throughout the entire Mine life cycle. The commitment of Lisheen went beyond the implementation of the physical closure of the site. The mine aftercare programme ensures that a comprehensive plan is in place.



A few milestones achieved are as under:

All potentially hazardous materials have been removed from the underground working areas

Re-watering of the mine which commenced on 31st December 2015 is ahead of schedule and consequently, the groundwater level has increased from 200m below ground level to 7m below ground level across the area that was impacted by dewatering

A good sustainability practice was initiated with the dismantling and re-erection of the concentrator building at a new purchaser site

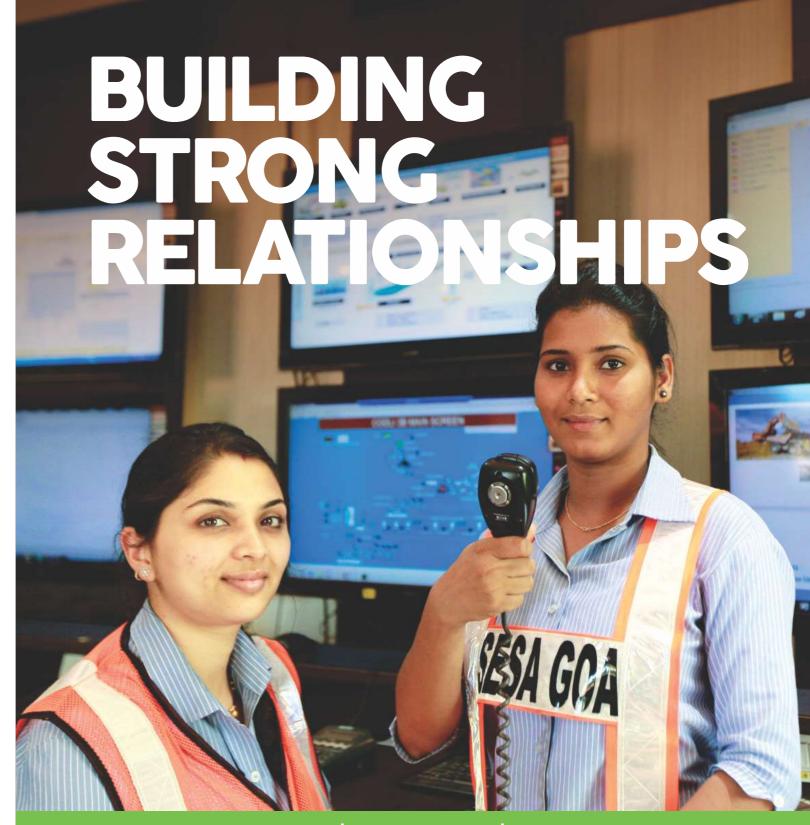
Areas that were at a risk of soil contamination are being stripped and the removed material is being disposed of at the Tailings Management Facility

All entrances to the underground workings have been permanently sealed through proper and timely implementation of the capping programme

74% of the Tailings management facility has been capped and rehabilitated to farmland pasture. The TMF will be fully rehabilitated by the end of 2017

The outplacement programme for the employees has been successfully implemented where most of them have moved seamlessly into new jobs

VEDANTA AND LISHEEN
TOP MANAGEMENT HAVE
A VISION BEYOND THE
CLOSURE OBJECTIVE
TO ESTABLISH A
"BIO-ECONOMY CAMPUS" A REPLACEMENT
INDUSTRY THAT PROVIDES
REPLACEMENT JOBS AND
SUSTAINABLE GROWTH.



Stakeholder Engagement | Human Rights | Neighbourhood Dialogue

Maintaining and managing relationships is crucial to ensuring that we continue to drive value for all stakeholders.

We work hard to engage with our stakeholders, uphold the tenets of human rights and be regarded as a friendly neighbour for local communities.

# STAKEHOLDER ENGAGEMENT

Conversations on thoughts lead to convergence in action and outcomes. Constructive dialogue with an array of stakeholders not only helps our business to succeed, it also lets us foresee and manage relevant risks, opportunities and challenges. Our stakeholders groups can be segmented as:



**Employees** 











**Shareholders Investors & Lenders** 

**Answer** 

We disclose

be heard and

providing a constructive

response.

because we are

responsible. Equal

attention is laid on

because we want to

Civil Society

**Communities** Industry (suppliers, customers & peers)

Governments

Just as our stakeholders are diverse, our modes of engagement too are multifarious. Information disclosures to participatory sessions, feedback forms to one-to-one discussions, satisfaction surveys to performance scorecards, top-management discourse to public hearings - we deploy a host of engagement channels depending on the need and nature of a stakeholder. Strategic Communications, the fourth pillar of our sustainable development model, is testament to our continued focus on maintaining transparent channels of communications with our stakeholders.

**Ask** 

concerns.

## Stakeholder Engagement Strategy



We have created a five-point roadmap for an impactful stakeholder engagement.

Our dialogue begins
with questions that
solicit feedback. Our
stakeholders have
access to a number
of platforms to reach
out to Vedanta
personnel and voice

# **Analyse**

We have established a robust investigation process for complaints reported via the Whistleblowing Mechanism and Sustainability ID with senior management and other function personnel.

We work hand-in-hand with stakeholders like governments, communities, industry bodies and NGOs; to align our goals and actions with high priority areas of the nations. The feedback of all engagements becomes part of our materiality identification exercise.

#### Act

There is no strongerproof of commitment to the cause than demonstrable action We back our words with acts that move the needle towards promised outcomes

Over and above our stakeholders, we also regularly engage with sustainability analysts to benchmark our performance with peers.

#### Responding to Stakeholder Concerns



The impact of engagement gets diluted, when the response gets delayed. Our stakeholder response system is managed directly by the Group Sustainability team and its Head to ensure timely responses and appropriate interventions. A dedicated public email address sustainability@vedanta.co.in is our one-point contact for all grievances and queries regarding the Vedanta Group and its Companies. Additionally, all emails and correspondence pertaining to our sustainable development initiatives, received by corporate functions like Corporate Communications and Investor Relations teams, are being forwarded to the sustainability team. The feedback received through our website is also recorded to analyse and review our stakeholder engagement performance.

We also proactively meet with key stakeholder groups including civil society organisations, media and industry associations, to increase awareness about our business, explain our point of view and answer queries. In-house journals and newsletters, such as Zinc News and Yagna, are published to engage with employees, our wider industry, communities as well as host governments.

All the issues, feedback points and grievances raised are recorded, and contribute to our continual monitoring of stakeholders' interests. Ultimately, they become part of stakeholders' feedback in our materiality identification exercise. BUILDING STRONG RELATIONS HIPS HUNSHIPS RIGHTS

For us, upholding Human Rights is a fundamental responsibility, and it ranks high on our priority list. With majority of our operations in developing countries, we are aware of its importance and have thus made it a material aspect across all our business decisions.

**OUR HUMAN RIGHTS POLICY IS ALIGNED TO THE UNITED NATIONS GUIDING PRINCIPLES ON** BUSINESS AND HUMAN RIGHTS, AND INCLUDES STRICT PROHIBITION OF ANY FORM OF **COERCED LABOUR - EITHER DIRECTLY OR THROUGH CONTRACT LABOUR.** 

Additionally, our Code of Business Conduct and Ethics (Code) ensures that we comply with all relevant national laws and regulations, thereby underpinning our approach to protect the fundamental rights of all our direct and indirect employees, communities and immediate supply chain.

#### **Direct & Indirect Workforce**



We maintain a cordial and constructive relation with all employees and labour unions. There is zero room for human rights violations at our operations and any case of non-compliance is severely dealt with. We have robust mechanisms like employee grievance processes, collective bargaining and contract labour management cells at all our operations.



Our workforce at Mangala Processing Terminal, Barmer, Rajasthan

#### **Collective Bargaining**

We uphold our workers' right to freedom of association at all our operations. The collective bargaining agreements are negotiated and agreed by the management and union representatives. The agreements include clauses relating to remuneration, allowances, working conditions, incentives and bonuses, health and safety, manpower productivity, etc. We aim to ensure that compensation for workers meets or exceeds the legal requirements.

Collective bargaining also gives us the opportunity to create a better and more productive work environment in terms of health and safety, working conditions, remuneration, allowances, incentives and bonuses.

## WE HAVE A COLLECTIVE BARGAINING MECHANISM AT OUR VARIOUS OPERATIONS AND THE PERCENTAGE OF WORKFORCE COVERED BY THE MECHANISM INCLUDE:





Our employees are our best brand ambassadors

For locations that do not have collective bargaining agreements, we have adequate systems and processes in place for employee consultation, appraisal, grievance redressal and development. We also have a mechanism to make the employees aware of any significant operational changes like restructuring, mergers and acquisitions, expansions, etc. Notification periods for significant operational changes are indicated in collective bargaining agreements and certified standing orders of respective entities. For example, in India the notification period is 21 days, 30 days for Namibia and South Africa, while in Zambia the minimum notice period is one year.

# **Ensuring Right Age for the Right Job**

At Vedanta, we take utmost care to ensure that our workforce, be it executives or contract labour are adults and willing to work. We have proper systems in place to strictly address child labour and coerced labour across all our operations. Apart from this, we carry out periodic inspections at our remote mine locations, where proof of age is mandatory for all contract workers. Our Suppliers' Code of Conduct stipulates that all our suppliers also commit to the same norms.

# Supplier Diligence

We encourage suppliers to adopt principles and practices comparable to our own. Our significant suppliers and contractors generally include well-reputed and well-governed organisations, with robust human rights and fair practice mechanisms. We continue to ensure due diligence by conducting inductions, screenings, inspections and audits on a case to case basis. Any concerns raised by interested parties on any of our key suppliers is promptly addressed by undertaking an independent assessment.

The Suppliers' Code of Conduct is implemented as part of the terms and conditions of supplier contracts across the Group and all new suppliers are required to sign, endorse, and practice this Code.

At Vedanta, we have a Supplier & Contractor Sustainability Management Policy. Both the Code as well as the Policy clearly communicate our expectations from our suppliers: to operate in compliance with all relevant legislations and follow our policies while executing work for or on behalf of Vedanta.

The Supplier and Contractor
Technical Standard further includes
a Supplier Screening Checklist to
evaluate contractor compliance
relating to key issues e.g. legal
compliance, HSE management,
labour management, human rights
and child labour.

This checklist is used by operations to screen suppliers and contractors as part of a prequalification process prior to awarding work.

At the time of engaging new suppliers, the contract mandates the supplier to abide by the law of land and ensure that there is no violation of labour laws. In addition, checks at various levels are also carried out to ensure the adherence to labour practices.

AT STERLITE COPPER, WE USE A FOOL-PROOF RADIOLOGICAL AGE IDENTIFICATION PROCESS TO ASSESS CHILD LABOUR VIOLATIONS.

#### **MODERN SLAVERY ACT 2015**

The UK Parliament constituted the Modern Slavery Act (MSA) to tackle the issues of slavery and human trafficking. The law helps to enhance investor, employee and consumer confidence and trust in an organisation by building a foundation of strong ethical standards.

Last year, we had proposed a number of steps through which we are incorporating the Modern Slavery Act 2015 in our operations. Implementation of the compliance framework for MSA has been a prime focus area for our sustainability committee this reporting period.

Based on our assessment, we identified close to 145 suppliers under the Very

High and High Risk categories w.r.t. MSA compliance. Out of these 145, we terminated our association with 17 suppliers with immediate effect.

Of the remaining 128 suppliers, 117 were identified for audit in the audit cycle of the current financial year. They were subjected to an independent MSA audit by M/s PwC. The site visit for the audit team involved initial awareness sessions for relevant people on key MSA provisions, verification of documents/records, and interviews.

Audit findings are shared with commercial departments of individual businesses which are directed to incorporate recommended changes and handhold vendors to meet

compliance. Commercial processes and procedures of vendor selection and engagement will be reviewed going forward in view of findings of the audit to resolve systemic issues.

Under the current framework implementation, we have put in place a system for training of vendors/ suppliers, due diligence, and self-declaration.

Our Supplier Code of Conduct and Contract Conditions was also updated with a provision on compliance to MSA.

#### **Local Communities**



We operate in diverse geographies and our respect for the norms, culture, and heritage of local communities remains strong as ever. We have developed a number of standards and abide by them.

This includes the Cultural Heritage Standard, Land & Resettlement Management Standard, and Indigenous People and Vulnerable Tribal Groups Standard that have been developed in alignment with international practices including ICMM guidelines and IFC standards. groups, indigenous peoples, and vulnerable tribal groups. To safeguard their rights, we follow the principle of Good Faith Negotiation (GFN), Informed Consultation and Participation (ICP) and/or Free, Prior and Informed Consent (FPIC).

expressed invitation and Free Prior Informed Consent (FPIC) of local communities. Bauxite is abundantly available in other parts of Odisha and we continue our engagement with the State Government to secure alternative supplies to support the ramping-up of our Lanjigarh Refinery.

# Indigenous Peoples and Vulnerable Tribal Groups (IPs/VTGs)

The Group's standards and guidance note on IPs & VTGs were rolled out to support the implementation of our Human Rights Policy.

The core aim of the standard is to enable our project teams to engage, negotiate, and partner with the vulnerable groups in a manner that avoids negative impacts and risks for all stakeholders, especially the indigenous peoples and vulnerable tribes.

Our standards provide special provisions for stakeholder engagement with marginalised

# Land Acquisition and Resettlement

Prior to 2010, to secure long-term bauxite supply for our Lanjigarh Alumina Refinery, we had signed a Memorandum of Understanding (MoU) with the Government of Odisha, India. As part of this MoU, the Government of Odisha agreed that the Odisha Mining Corporation (OMC) - a government-owned enterprise, would provide 150 million tonnes of bauxite for our processing facility. The Supreme Court of India approved this bauxite mining project in 2008.

However, the Ministry of Environment and Forest (MoEF) subsequently declined the request for final clearance, following concerns voiced by local communities, including several tribal villages (IPs) near Niyamgiri. Consequently, OMC could not commence mining.

In accordance with the Company values, we responded with numerous public communications reassuring the affected communities that we would not consider bauxite mining at Niyamgiri without

#### Security Practices

We have Code of Conduct policy in place which educates our employees on Human Rights aspects. This year we provided 375,373 man-hours of employee training on various programmes on Code of Conduct & Human Rights. The employees who received this training range from our on-site security guards to our transport workforce, wherein we have previously identified some risks of child labour.

We emphasise that none of our operational procedures violate the human rights of any individual. Based on our curriculum and the module that is being followed by all Vedanta units, we have been laying a tremendous stress on human rights training of security personnel.

The total coverage in terms of training is 78.9% with regard to contractors and regular employees. It is worth noting that across the Group, we generally work with private and professional security companies (rather than local security forces or military). Our security personnel are not typically armed and we have not experienced significant human rights abuses involving our security personnel.

# NEIGHBOURHOOD DIALOGUE

**OUR APPROACH TOWARDS BUILDING A NEIGHBOURHOOD DIALOGUE IS BASED ON** DISCLOSURE OF RELEVANT PROJECT INFORMATION, CONSULTATION AND PARTICIPATION OF ALL AFFECTED COMMUNITIES, ARRIVING AT MUTUALLY ACCEPTABLE SOLUTIONS, AND ADDRESSING MATERIAL CONCERN TO STAKEHOLDERS, INCLUDING AFFECTED COMMUNITIES.



We are committed to empower local communities in our areas of operations

The Environmental and Social Impact Assessments (ESIA) conducted for all new projects help in early identification of potentially affected communities in the project development stage. Our community relations team connects with identified communities to assess and manage environmental and social risks, and arrive at mutually acceptable solutions.

During the operational phase, these teams undertake ongoing consultation with interested and affected parties to manage

changes in the risk profile of our operations and sustain our positive relationship with communities. Our Cultural Heritage Land Acquisition and Resettlement Standards include consideration of Indigenous People, and have been developed to reflect relevant ICMM auidance (including ICMM Guidance Document: 'Indigenous Peoples and Mining') and IFC Performance Standards. We established a Guidance Note addressing Indigenous Peoples/Vulnerable Tribal Groups (IPs/VTGs) to help operations understand these standards.

The core aim of the standard is to enable our teams to engage, negotiate and partner with IPs/VTGs to avert negative impacts and risks for all stakeholders while establishing new projects.

The standard helps to identify the unique characteristics and expectations of each group in the neighbourhood resulting in the creation of economic and social development opportunities. We rolled out the IPs/VTGs standard along with an international consultancy to implement trainthe-trainer training for key staff members.

#### **Community Needs Assessment**





Understanding community needs and expectations is an intricate process, but is imperative for our operations.

Two years ago, we completed our most comprehensive, structured, and collaborative community engagement to date, in

partnership with government and nongovernment organisations active in remote regions of India. This exercise was done to help us create medium and long-term development plans in participation with our stakeholders and covered communities adjacent to our sites.

Each community group (including women and marginalised individuals) had the opportunity to freely voice their opinions without fear. One of the main concerns that came to the fore was related to livelihoods (in terms of either employment or supplier opportunities with Vedanta).

This valuable feedback saw many of our businesses develop vocational training projects. As on date, all of our subsidiaries and divisions have completed the study or are in the process of completion and the rest have committed to work on it

Based on the results of the assessment, we zeroed-in on pivotal needs of the communities and are spearheading projects to address the same. For example, in locations where we cannot provide employment, we are exploring vocational training (for example, in brick manufacturing), entrepreneurship options (focussing on women), and other employability routes.

Our ambitious Nand Ghar project has been designed such that in addition to providing pre-primary education to children, its infrastructure can be used to train villagers and enhance the income generation in rural India.

For details, refer to Community section

#### **Community Grievance Mechanism**



Grievances, if unaddressed can escalate into significant issues or disputes, which may have the potential to disrupt operations as well.

In accordance with our Grievance Mechanism standard, the concerned department addresses any grievances wherever possible. We also have a mechanism wherein unresolved grievances are escalated to senior management for their perusal and decision-making. We continually improve our grievance redressal process to align with international good practices to guarantee timely and appropriate resolution

At Group level, we have a dedicated email address sustainability@vedanta.co.in, for all external grievances.

All community incidents (social and labour) and grievances are recorded and categorised as

negligible (1) minor (2) moderate (3) serious (4) or disastrous (5).

An online feedback form is also available in the Sustainable Development section. of our website. Similar mechanisms are communicated as part of our annual Sustainable Development Report allowing reviewers to submit their comments and feedback with respect to

All issues, feedback points and grievances raised are recorded and contribute to our continual monitoring and understanding of stakeholder interests and advise our materiality review.

#### **How We Performed**

community grievances were recorded across our businesses, of which

were actionable and were resolved in a timely manner.

Out of all the registered grievances, we didn't observe any significant incident related to violation of human rights.

Further no category 4 labour incidents were recorded in FY 2016-17, although lower-level incidents such as village road blockages and strikes were recorded, particularly related to employment and contractor issues, infrastructure projects and some operational issues including land and traffic



# ADDING AND SHARING VALUE

**Economic Responsibility | Employees | Community** 

What we earn must be returned for the greater good of society.

Pledging 75% of wealth to social good.

# ECONOMIC RESPONSIBILITY

We are in the business of producing commodities and supplying energy that impact lives and economies by serving for the essentials of creating infrastructure, like need for transportation and power, and also providing for the material requirements of manufacturing consumer goods. We are also excellently located: Vedanta operates primarily in India and Africa, countries that are endowed with an abundant supply of natural resources, and have growing economies waiting to leverage their potential.

With a business model of growth, constant value creation and improved operations, our vision is focussed towards building the wealth of our shareholders in a sustainable manner while minimising the effect of our operations on the environment, and maximising the benefits for the local

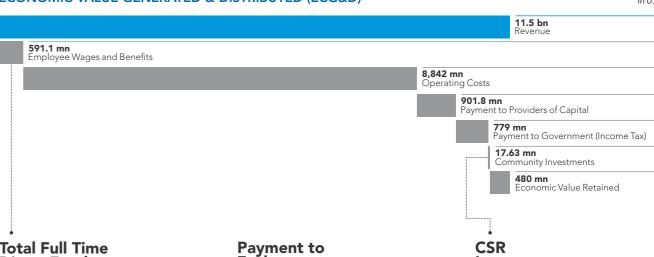
We have trifurcated our approach to value creation.

Add value to the countries' exchequer by unlocking their natural resources and paying taxes & royalties for our operations

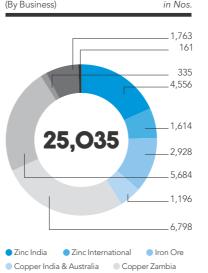
Enhance value to our assets by innovative and advanced processes that help us be more productive and competitive

Seed value across the workforce and the community through extensive training, and longterm projects and programmes that accelerate development and ensure equitable growth

#### **ECONOMIC VALUE GENERATED & DISTRIBUTED (ECG&D)**

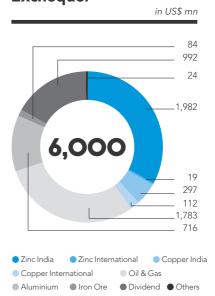




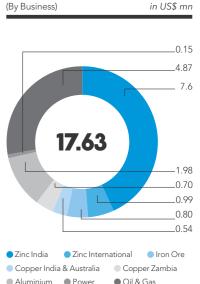


■ Aluminium
■ Power
■ Oil & Gas
■ Others

#### Exchequer



#### Investment



#### **ECONOMIC PERFORMANCE**

We saw a better environment for our business in FY 2016-17. The sector benefited from a combination of positive global economic activity, coupled with a progressive tightness of commodity supply. Moreover, the commodities that performed best globally - zinc and oil, are also the ones in which we are strong. This meant that Vedanta's own basket of commodities outperformed the sector generally.

At Vedanta, we complemented the benefits of better market conditions by maintaining tight financial discipline. Our savings programme continued to drive down costs intelligently and safely, through enhanced plant productivity and material efficiency.

WE DELIVERED A STRONG SET OF RESULTS THIS YEAR AND TOOK IMPORTANT STEPS
TOWARDS ACHIEVING OUR STRATEGIC OBJECTIVES. WE REACHED RECORD PRODUCTION
LEVELS ACROSS SEVERAL OF OUR BUSINESSES LIKE ALUMINIUM, POWER, ZINC-INDIA
(ZINC AND SILVER) AND COPPER - INDIA AND I AM CONFIDENT OF
CONTINUED SUCCESSFUL RAMP-UPS FROM OUR WORLD-CLASS ASSETS.

ANIL AGARWAL | CHAIRMAN, VEDANTA RESOURCES PLC

IDIA —

nn ■ Revenue ■ EBITDA

**EBITDA** 

Here is a snapshot of our economic performance across the stakeholder spectrum.

# Shareholders & Lenders

We believe in the philosophy of working and growing with our investors. We recently announced a new dividend policy at Vedanta Limited and earlier in the year at Zinc India.

Against a target of US\$1.2 billion savings in 4 years set in FY 2015-16, we delivered US\$800 million

US\$800 million

saving in 2 years.

DURING FY 2017, WE DELIVERED ON THE MERGER OF CAIRN INDIA LTD. (CAIRN INDIA) AND VEDANTA LIMITED, SIMPLIFYING THE GROUP STRUCTURE. THIS IS A SIGNIFICANT STEP FORWARD TOWARDS ACHIEVING OUR STATED LONG-TERM VISION OF ALIGNMENT OF INTERESTS BETWEEN ALL SHAREHOLDERS FOR THE CREATION OF LONG-TERM SUSTAINABLE VALUE.

#### **Dividend**

2016-17

**REVENUE** 

Vedanta businesses have regularly and consistently announced dividends as it gives a powerful message to shareholders on prospects and performance of the organisation. With a strong operational performance and a supportive market environment, we delivered encouraging numbers for FY 2016-17.

In March 2017, Hindustan Zinc Limited announced dividend of US\$2.1 billion including dividend distribution tax.

Together with its golden jubilee dividend paid in April 2016 and the interim dividend paid in October 2016, this is the largest dividend outflow by any company in India in single financial year.

Vedanta Limited announced a dividend of US\$1.0 billion, of which US\$500 million was received by Vedanta Resources Plc

# Government

By contributing to the exchequer and the national economy, creating and supporting direct and indirect employment, and by purchasing goods and services, we have developed and maintained a productive and long-lasting relationship with governments across every country we operate in.

We have not received any direct financial assistance from governments during the reporting year, although as part of various direct tax holidays and similar exemptions, Vedanta did benefit by US\$204.8 mn during FY 2016-17.

IN FY 2016-17, WE CONTRIBUTED US\$6 BN TO THE EXCHEQUER COMPARED TO US\$3.2 BN IN FY 2015-16 THROUGH DIRECT AND INDIRECT TAXES, LEVIES, ROYALTIES AND DIVIDEND.

In accordance with the UK Bribery Act, it is a Vedanta Board policy that neither the Group nor its subsidiaries will make donations or contributions to political parties within the United Kingdom or European Union. In India, political donations or contributions made within the context of legitimate business operations are made only with the approval of the Board. Last year, no political donation was made by any of our businesses.

#### Tax Transparency

Transparency is the key to long-term sustainability and Vedanta firmly believes in it. Irrespective of our country of operations, we remain transparent and open in our tax affairs. We brought out our first Tax Transparency Report (TTR) in 2015-16. The TTR contains all the details of the contributions we made to the public finances in the countries of our operations. In 2016-17, we also plan to publish TTR on our website to maintain accountability towards our stakeholders.

## **Employees**

With over 70,000 employees, Vedanta is not only a natural resources company but also a human resources company.

FOR VEDANTA, FINANCIAL RETURNS ALONE ARE NOT THE MARK OF A GOOD BUSINESS, WE ALSO CARE PASSIONATELY ABOUT THE WELL-BEING OF OUR EMPLOYEES. WE INVEST IN THEM BY INTRODUCING FUTURE-LOOKING POLICIES AND INNOVATIVE PROGRAMMES FOR THEIR ALL-ROUND PROFESSIONAL DEVELOPMENT AND PERSONAL WELL-BEING.

We provide them best of the remuneration and benefits in the industry, and uphold merit in hiring as well as career progression. To nurture this talent and motivate them, we provide ample scope for personal and professional development, and maintain a conducive work environment.



# Industry, Supply Chain & Customers





Mining companies that effectively manage supply chain significantly improve their profitability, productivity and product quality. At Vedanta, where supply chain management affects both, upstream and downstream, supply chain management is a material issue which directly impacts our business. Managing it therefore is important not only from the risk point of view but also as an opportunity to demonstrate our commitment to the communities where we operate.

VEDANTA'S OPERATIONS ARE IN SOME OF THE MOST REMOTE GEOGRAPHIES OF THE WORLD. WE ENGAGE WITH OUR SUPPLIERS TO MAKE THEM UNDERSTAND THEIR RESPONSIBILITIES TOWARDS ENVIRONMENT, SAFETY AND HUMAN RIGHTS AND SUPPORT THEM IN COMPLYING WITH THE INTERNATIONAL STANDARDS. TO STRENGTHEN OUR RELATIONSHIP, WE SOURCE FROM THE LOCAL SUPPLIERS WHICH BENEFITS LOCAL COMMUNITIES AND GOVERNMENTS, CONTRIBUTES TO THE LOCAL ECONOMY AND REDUCES CARBON FOOTPRINT.

Local sourcing further helps in improving the skills of the suppliers and improvement in the local infrastructure. We have an established Supplier Code of Conduct, Supplier and Contractor Management Policies, Supplier Screening Checklist that encourage business partners and suppliers to adopt principles and practices comparable to our own.

The Supplier Screening Checklist, which is used by our operations to screen and evaluate contractor compliance includes key aspects on legal compliance, HSE management, labour management, human rights and child labour. This checklist is used by operations to screen suppliers and contractors as part of a prequalification process prior to awarding work.

# Society



We have been focusing on children's wellbeing and education through our programmes such as Nand Ghar, women empowerment with the help of Subhalaxmi and Sakhi projects, health through construction of hospitals and conducting mobile health camps, skill enhancement through vocational courses, and farming and animal husbandry through various projects.

#### Social investment US\$ 17.63 million

2.2 million beneficiaries

217,000

villagers benefited through safe water & sanitation initiatives

124 toilets constructed in13 villages

To read more about our community initiatives, please refer to the Community section on page 54.



**Customers** 

Vedanta is one of the major producers and marketers of the commodities across the world. We understand customer's expectations and provide them with quality products they require in a safe and efficient manner.

To complement the quality products, we use advanced technology that ensures transparency, ease of access and value addition to suppliers. Our SAP supplier portal is highly efficient and secure method of communication between purchasing organisations and vendors. It also allows customers to send requests for quotations, vendor bidding and online auctions.

Our products meet the required London Metal Exchange (LME) standards before entering the commodity market. We continue to engage with our customers through pre-defined mediums and channels to understand and meet their requirements. We also evaluate customer satisfaction through third party surveys. All these activities are centred around meeting customer's need in an appropriate manner.

No cases of non-compliance with relevant regulations, anticompetitive behaviour, anti-trust, monopoly and voluntary codes concerning the health and safety impacts of our products and services were observed or reported.

Similarly, no significant fines for noncompliance with laws and regulations concerning the provision and use of products and services were reported.

#### **Focus Area**

#### **Exploring technology for better exploration**

Technology is changing the natural resources sector in a major way. It has not only increased operational efficiency and productivity, but also led to better safety of individuals working in the sector.

At Vedanta, technology is being considered as one of the answers for major challenges such as sustained competitiveness and productivity, innovation across existing operations and exploration sites, and capital management.

Here is a snapshot of some of the technologies we have adopted:

High speed drilling - surface & underground

Motorised directional drilling and 'leg' holes

3D modelling software to view drilling data

Data collection direct to digital

Deeper penetration through geophysical surveys

#### Multi-element geochemical analysis

Going forward, we plan to focus on technologies such as 'Big Data' analysis & modelling, Corescanning and Drone geophysics to open new avenues to more efficient exploration.

## DURING THE YEAR, WE INITIATED A US\$30 million

INVESTMENT FUND FOR IN-HOUSE R&D, SUPPORTING OUR WEALTH OF KNOWLEDGE AND SPIRIT OF INNOVATION WITH MEANINGFUL RESOURCES



#### **Innovation platform - Eureka**

We are also actively incentivising our people to contribute their own ideas. One example is Eureka, our new digital platform to nurture and incubate house innovation and technology, which is currently being embedded throughout the business.

It encourages our employees to come up with innovative ideas focusing on using technology to support mining in a sustainable way by reducing waste and improving energy efficiency.



TO DATE, AROUND

1,000 ideas
HAVE BEEN SUBMITTED AND

200

HAVE BEEN SELECTED FOR
MPLEMENTATION, AND
WILL BE ROLLED OUT
ACROSS OUR OPERATIONS.

DDING AND HARING VALUE

## **EMPLOYEES**

VEDANTA LIMITED RECOGNISED AS ONE OF THE 'TOP COMPANIES TO WORK FOR IN ASIA' IN 2016 BY ACES



The workforce at Hindustan Zinc

Being a natural resources organisation, human capital is at the core of our business. Our employees are key to our success and sustainability. Their safety and well-being is our prime responsibility. Above 70,000 workforce across the world is not only our hands and brain, but also our heart and soul.

Launched V-Connect, a landmark engagement initiative covering professional population of about

**12,000** employees

levels which includes maximum campus hires.

Their depth of knowledge helps us dig deeper and their ambition takes us higher. We, on our part, introduce and enforce future-looking policies and innovative programmes to aid all-round professional development and personal well-being of our employees.

We invest in our employees across every stage of their career, right from induction and on boarding, to training and honing their leadership skills. This not only helps us leverage the power of a dynamic talent pool, but also enables engagement and enhances motivates employees to aspire for more.

Organised internal growth workshops for

1,200

high performers to create leadership pipeline



application to security is **98.39%** for the reported period.

Total training hours provided this year for all employees and for all reported employment category is

1.33 million man hours.

#### **OUR PRIORITIES**

#### **Organisational** Growth



While natural resources companies globally have gone through a cycle of downturn, leading to muted hiring in the sector in the recent past, we continued to attract global talent during this time.

WE BELIEVE THAT FOR ORGANISATIONS TO GROW SUSTAINABLY, IT IS IMPORTANT THAT ITS PEOPLE GROW - PERSONALLY AND PROFESSIONALLY. AT VEDANTA, OUR EMPLOYEE-CENTRIC **HUMAN RESOURCE POLICIES NURTURE CULTURE THAT FOSTERS ENTREPRENEURSHIP, INNOVATION, CREATIVITY, RESPONSIBILITY** AND DIVERSITY.

Our operations are spread across four continents and eight countries. At all these locations, we ensure that the ratio of entry level wages meets or exceeds the legal requirements and complies with all applicable laws. With regards to gender, the ratio is 1:1 and we don't discriminate in any way in terms of standard entry level wages.

We are committed to provide equal opportunity to our employees irrespective of

their race, nationality, religion, gender or age. Most of our operations are in remote and lesser privileged areas and for our operations, we focus on recruiting the local population.

A significant percentage of the senior management and our employees are recruited from the country in which our operations are located

#### Total percentage of locally hired Senior Management Personnel



We invest significantly in developing and retaining key talent to drive innovation and efficiency within the business.

ATTRITION RATE 5.3 FY 2016-17



This year, our HR teams across group companies initiated various programmes that included benchmarking processes and policies. We aspire to imbibe best-in-class practices to become a 'great workplace' that attracts and retains talent.

#### INITIATIVE

#### **ENGAGING WITH GLOBAL TALENT**

During the reporting period, Vedanta Limited launched its 'Global Internship Programme' (GIP). Through this programme the idea is to bring on board professionals who are currently undergoing courses in Ivy League colleges and who can share fresh perspectives on business, and in the process benefit from the mentorship by leaders, on live projects.

**VEDANTA'S GIP ENGAGES WITH PRESTIGIOUS INSTITUTIONS LIKE** HARVARD BUSINESS SCHOOL. WHARTON SCHOOL AND **THE LONDON BUSINESS SCHOOL. ALONG WITH OTHER HIGH RANKED** INSTITUTIONS.

In this programme, during the year, ten dynamic and diverse students from London Business School were inducted.

The GIP is designed for high achievers to apply their academic knowledge, analysis and business acumen to some of the most challenging projects in a real-life environment. The interns are provided mentorship throughout the internship and their progress monitored.

The first batch of students commenced their projects in June 2016 in the duration ranging from 6 to 12 weeks. Every project had well-defined deliverables, targeted outcomes and learning opportunities outlined.



#### INITIATIVE

#### **ACHIEVING** GROWTH **AMBITIONS WITH** THE RIGHT **MANPOWER**

THE PEOPLE POWERED PLANT

To keep pace with the growing global demand for Aluminium, Vedanta Ltd. set up two aluminium smelting plants at Jharsuguda, Odisha. The expansion of the 1.25 mtpa smelter plant-2 was pivotal to this growth strategy. But while the plant and the required resources were in place, we needed quality manpower to operate it as per the Vedanta quality standards. Finding the right talent is vital for any natural resource industry to implement the task, contribute to our profit as well as benefit themselves.

Taking this challenge head on, the HR team at Jharsuguda devised a comprehensive recruitment process:

**Talent Attraction The team** conducted recruitment drives and engaged with students across college campuses in India to ensure a skilled and vibrant workforce

**Robust Induction The internal** Learning & Development team designed a robust induction programme covering topics of Safety, Operations, HR, IT, Finance, **Excellence & Innovation initiatives** for better and faster assimilation in the organisation.

**Buddy Programme All the new** recruits were provided with a 'buddy' who would informally guide and support them for the first year.

**Engagement In addition to recruiting** the right talent, it is important to keep them enthused. Several employee engagement activities; ranging from a welcome party, talent competitions, sports tournaments and cultural events to a platform for interaction with senior management was introduced.

WITHIN A SHORT SPAN OF TIME THE HR TEAM AT JHARSUGUDA HAS BEEN ABLE TO SOURCE A TALENT POOL OF **ABOUT 800 EMPLOYEES AND** THROUGH FOCUSSED EFFORTS HAS ENSURED THAT THE **REQUIRED MANPOWER IS** THERE TO ACHIEVE THE STATED BUSINESS GOALS.

#### **Talent Management** & Development



At Vedanta, we encourage employee development by providing enriching roles through job rotation, mentoring, coaching and career development opportunities. Over the years, we have deployed a range of talent management programmes and training initiatives and these have evolved over time and have helped us to remain at the top of our game.

During the year, we organised Internal Growth Workshops across the businesses to identify, develop and promote 'New Leaders' both in 'Technical' and 'Enabling' core functions. Our seniormost management team anchored the initiative, where the new leaders were identified through a structured process. The identified leaders were then given accelerated growth opportunities by way of transformational roles for delivering business goals.

#### **EMPLOYEE TRAINING**

Areas of emphasis:

Full Time Contract **Employees** Employees Female Male Female 536,837 82,923 712,255 14,499

**LEADERSHIP** 

**₱** DIVERSITY & **INCLUSION** 

#### Focus Area: Future Leadership

#### **Internal Growth Workshops**

Vedanta attracts the best talent given its core strengths of high quality performance, governance and value-based architecture. The challenge is to develop and groom this talent to become highly competent professionals capable of taking up leadership roles in the organisation. We believe that the dynamism, agility and passion of our professionals will take us into the next growth orbit. This led to the inception of Internal Growth Workshops.

Promoting internal talent to leadership roles has been in the DNA of the Vedanta Group since long and has been key to our rapid growth. During the reporting period, Chairman of Vedanta Limited, Mr. Navin Agarwal gave this process a shot in the arm by institutionalising a structured process to identify, nurture and deploy young talent across hierarchies.

#### Objectives of Internal Growth Workshops

Identifying young leaders through a structured process

**Developing highly** competent leaders

**Providing growth** & recognition

In each of these workshops there is a panel comprising senior executives from businesses and functions, which evaluates the talent and identifies suitable opportunities and leadership roles within the organisation.

#### Internal Growth Workshops:

1,200 high performers covered in over 50 workshops

300 new leaders including technical and enabling functions across Vedanta

women professionals selected for higher responsibilities

#### Focus Area: Diversity & Inclusion

#### **Women-friendly Policies**

We believe in collaboration of perspectives and ideas of diverse individuals that can result in superior outcomes for the organisation. We are ever committed to have a diverse workforce and groom our employees to take up leadership roles. The Company's Board has 13% representation of women and has set out a target to reach to 33% by year 2020.

Our progressive women-friendly policies in the areas of internal growth opportunities, leadership development, engagement, women-networking forums and enhanced parental leave policy have made us the one of the top companies to work for. Our support for gender parity has been reiterated by becoming a signatory of the 'CEO Statement of Support' for the United Nations' Women's Empowerment Principles (WEP) - 'Equality Means Business'

FULL-TIME FEMALE **EMPLOYEES** 

In the reporting year, various Vedanta business launched unique initiatives to help women connect with other women in the organisation to share their experiences, advice and insights.







#### **Networking Forums**

We have various networking forums at our business locations. This year, our Iron Ore Business launched 'Tarang', a developmental initiative for women professionals across functions including Geology, Civil, Mining, Maintenance, Finance and others. Such structured interventions support improvement in gender diversity in our Executive Committee teams.

During this period, TUFemina was launched by Sterlite Copper, where women employees get an opportunity to learn from the shared experiences of Women Leaders.



Vedanta Ltd. has been recognised as one of the '100 best companies for women' in India by Working Mother and AVTAR.

#### **Parental Leave Policy**

Settling at work, post maternity leave is challenging and often becomes a reason for high women attrition rate across industries. Considering this, a new parental leave policy was launched by Vedanta that ensures smooth transition.

The progressive and proactively introduced parental leave policy provides paid maternity leave for 26 weeks, adoption leave of 12 weeks and paternity leave of 1 week. For returning mothers, the policy also provides flexibility to move into another job profile to manage work-life balance.

	Male	Female
No. of employees who have taken parental leaves in 15-16	311	168
No. of employees who returned to work after parental leave and who were still employed next 12 months after their return to work	297	157
Retention %	95.49%	93.45%

Retention % is calculated basis the no. of employees who returned and were in continuous service for next 12 months / no. of people who went on parental leave.

Empowering Women is integral to corporate philosophy, culture and environment of Vedanta



# Employee Engagement & Retention



Employee Engagement is one of the key pillars for us to drive business performance and productivity. Engagement initiatives are taken every year across geographies, levels and functions to keep our employees enthused and focused.

We understand that collective bargaining offers the opportunity to build a constructive relationship between management and union representatives. Negotiated agreements include clauses on productivity, health and safety, working conditions, remuneration, allowances, incentives and bonuses. We have a collective bargaining mechanism at our HZL (47%), Zinc International (79%), KCM (86%), Sesa Iron Ore (68%), CMT (36%), BMM (86%), Skorpion (79%) and BALCO (57%) operations.

In addition to the engagement modules mentioned in the Stakeholder Engagement section on page 37, some of the major initiatives introduced or taken forward during the reporting period were:

#### INITIATIVES

#### LEVERAGING TECHNOLOGY - VIRTUAL CONNECT SESSIONS



During the year, Vedanta Resources Chairman Mr. Anil Agarwal interacted with more than

5,000 employees across

30 locations

countries

Mr. Navin Agarwal, Chairman Vedanta Limited addressing employees during a town hall

With a dispersed workforce, like ours, it is important that employees across the organization understand the larger picture and how they can contribute towards achieving the organisational goals. This year we organized virtual town hall meetings to share the business priorities and facilitate a two-way dialogue. Town hall has also enabled various seamless live sessions between Vedanta Senior Executives and its employees using Personal Computers, laptops and mobile devices from any location through Webcast.

#### V-CONNECT PROGRAMME

V-Connect is a programme that connects our Talent (high performers) with 'Anchors' (senior leaders) and provides an opportunity for Talent to discuss career aspirations, share their development areas and seek guidance on development journey. In the journey, the aim is to keep the talent engaged and achieve better performance. This initiative is being programme-managed and supported by our consulting partner, Aon Hewitt. An app called 'Aon Lead' connects both the parties seamlessly to share, communicate and track their performance, participate in challenges and offer feedback.

In Phase 1, around 1,000 'Talents' were identified across the Group Companies to be a part of V-Connect. For this talent, we identified a group of 70 'Anchors' including ExCo leaders and our Chairman Vedanta Limited. Each talent has been mapped to an Anchor and interacts on a regular basis - either one-on-one or in a group. In Phase 2, looking at the interests across the organisation, V-Connect has been further extended to entire professional population of 12,000 employees.





#### SCORECARD FOR SUCCESS

To bring out the best in our employees, we have put in place a Performance Scorecard for our employees and are driving this as a project along with Aon Hewitt. This year we have created around 3,000 Performance Scorecards across Vedanta businesses and functions with clearer goals, measurable targets & defined performance levels.

#### Health & Well-being



🖈 SDG

We are living in a fast-paced world, where keeping abreast with the changing times often costs one's health and well-being. Staying healthy infuses enthusiasm and confidence in the team and also boosts the overall productivity of an organisation. We look at overall well-being of the employee. Therefore, we take immediate and corrective actions against any discrimination which could hamper the personal and business sense of the employee. This year, two such incidents of discrimination were reported in Black Mountain Mines. These were resolved and dismissed by the disciplinary committee.

#### **Grievance**



Total number of grievances filed through formal

473

Grievances addressed during the year 425

Grievances resolved during the year

During the year, our Group Companies initiated a range of employee health and well-being programmes, some of them are mentioned below:

Konkola Copper Mines (KCM) launched a 100-day wellness journey, Nchingilile Ubumi, a Zambian phrase which means "I will protect my health". Under this programme, in addition to walking, a whole host of physical activities like aerobics, soccer, golf, netball, cycling and volleyball were encouraged.

Sterlite Copper's e-clinic provides a telemedicine platform where the employees can get online consultation from an in-house medical team as well as other specialist doctors and counsellors. 2,551 employees have used this facility to get timely medical consultation.

 $\mathsf{S}\mathsf{I}$ 

## COMMUNITY

SDG1 TO SDG6, SDG10

I BELIEVE IN 'TRUSTEESHIP'. THE ULTIMATE AIM OF VEDANTA IS TO EMPOWER PEOPLE AND ERADICATE POVERTY

ANIL AGARWAL, CHAIRMAN, VEDANTA RESOURCES



Corporates and communities thrive through cooperation and collaboration. It is a symbiotic relationship where the sustainability of one is inextricably linked to the prosperity and well-being of the other. We continue to nourish and nurture this

relationship, through focussed, timely and impactful investments in community development, fulfilling our responsibilities as a good corporate citizen and being a caring neighbour. Going beyond the traditional roles of business like paying the

exchequer, generating employment and complying with the law of the land, we spearhead interventions in domains that have a positive ripple effect and are the building blocks of a fair, equitable and just society.

Our community interventions primarily fall under the following areas:

#### **AREAS OF COMMUNITY INTERVENTION**



Children's Well-being & Education



Health Care



Drinking Water & Sanitation



Women's Empowerment



Skilling the Youth for New Opportunities



Sports & Culture



Agriculture & Animal Husbandry



Community Infrastructure



Environment Protection & Restoration

WE STRONGLY ADVOCATE SOCIAL DEVELOPMENT THAT IS UNDERPINNED BY COLLABORATIVE EFFORTS. A MAJORITY OF OUR INITIATIVES ARE IDENTIFIED, DEVELOPED AND CARRIED OUT IN COLLABORATION WITH LOCAL GOVERNMENT BODIES AND COMMUNITY ORGANISATIONS. THIS 'PUBLIC-PRIVATE-PEOPLE-PARTNERSHIP' (4PS) MODEL HAS INSPIRED US TO TAKE UP AMBITIOUS LONG-TERM PROJECTS LIKE PROJECT NAND GHAR.

# OUTREACH

17.6 million



#### WOMEN EMPOWERMENT

3,200+
Self Help Groups empowering almost
39,000 women



Our community engagement journey is steered by our Group-level CSR policy and Social Investment Standard, and the roadmap is charted through (a) baseline studies and need assessment surveys within our communities (b) consultation with stakeholders and subject matter experts, and (c) continual improvement in programmes based on findings of impact assessment and social audits.

Our materiality issues are being aligned to Sustainable Development Goals and action plans are being outlined.

#### **BENEFICIARY COUNT**

FY 2016-17

.21 million

FY 2015-16 **2.25** million

\*Some of the beneficiaries could be engaged in more than one project.

Based on the comprehensive need-based assessment conducted in FY 2014-15, and the social impact assessment studies that our businesses undertake at regular intervals, we have enhanced our focus on activities that have greater positive impact on the communities around us.

For more information about our need-based assessment study, please refer to the Neighbourhood Dialogue section on page no. 41.



#### **THRUST AREAS**

Our commitment towards 'Social License to Operate' goes beyond regulatory compliance and we are committed to sustainable development, inclusive growth and greater value creation for all our internal and external stakeholders. Our community development programmes are designed to provide quality education, health services and livelihood opportunities in the neighborhood

#### **Mission Nand Ghar**

This is our flagship intervention in the space of children's learning and health. In FY 2015-16, Vedanta signed an MoU with the Ministry of Women & Child Development to construct 4,000 new-age Nand Ghars (Anganwadis) across India. Over and above quality preschool education, we have envisioned these Nand Ghars as a convergence point for a number of government programmes with additional services such as primary healthcare and entrepreneurship training.



# TAKING NAND GHARS TO THE NEXT LEVEL

PROJECT NAND GHAR IS DESIGNED IN LINE WITH PRIME MINISTER OF INDIA'S VISION OF ERADICATING MALNUTRITION, PROVIDING EDUCATION AND SKILL DEVELOPMENT.

A detailed baseline study has been initiated at Barmer to understand in greater detail the advantage brought by a Nand Ghar to the community vis-à-vis an Anganwadi. The progress and impact of Project Nand Ghar, going forward, will be monitored through a mobile application which will be one of the largest deployments of real-time data collection software, enabled through mobile devices and tracking an estimated 120,000 children and 20,000 women start-ups spread across 11 states in India.

## **QUALITY EDUCATION**

We have developed a 40-week intensive course

**curriculum** incorporating interactive e-learning, learning kits, critical thinking and wall designs for preschool education at our Nand Ghars. This is the first time such a massive effort has been undertaken in India

#### **HEALTHCARE**

Each cluster of 25-30
Anganwadis will have access to a fully functional Mobile
Medical Unit (MMU). MMU's
provide essential primary healthcare services. During the reporting period,

two such MMUs were operationalised.

The following aspects of the project will be tracked in near real time basis:

- Attendance of children
- Improvement in learning outcomes
- Training for women
- Income enhancement for women
- Use of facility for health and immunisation



#### **ENTREPRENEURSHIP**

Modelled on the lines of Nobel Peace Prize-winning microfinance organisation Grameen Bank, women are provided end-to-end support for promoting entrepreneurship at each Nand Ghar through the following steps:

Mobilisation of women for training

Providing basic orientation on entrepreneurship, including identification of business opportunities & basics of marketing

Mobilising credit without seeking collaterals

Handholding in identification of local business opportunities, creating a business plan

Handholding the women through the ventures and providing marketing support

More than

1,600

WOMEN benefitted from these training programmes in this year and 158 women have started their micro enterprise.

What started out as a pilot project in FY 2015-16, is now being scaled up on a large scale.

STATE	DISTRICT	COMPLETED	
		GREENFIELD	BROWNFIELD
Rajasthan	Barmer Udaipur Ajmer	50 - -	2 2
Uttar Pradesh	Pilibhit Varanasi	15 25	-
Madhya Pradesh	Ratlam	5	-
Goa	North Goa South Goa	1 1	
TOTAL		97	4

There was a target of 100 Nand Ghars in greenfield out of which 97 were achieved. For brownfield, there were 4 pilot projects.

SDG4

# Children's Well-being & Education



Children are at the core of communities and society - their education, health and well-being determine the future of nations. Keeping this in mind, children's well-being and education have always been at the forefront of our CSR initiatives. Ensuring the right to quality education for every child is an ambitious dream that can only be achieved through collaborative efforts across all quarters.

We impacted the lives of almost 260,000 children through our programmes, as well as through government schools across locations.

We support more than 100,000 children below 6 years across 1,900 Anganwadis through our preschool initiatives.

Our programmes are aligned with the government-led literacy & education programmes in the countries we operate in.

Our comprehensive approach to education covers every stage from preschool to higher education.

#### **School Education**

The problems confronting higher education in India are chiefly to do with quality of learning, access and infrastructure. This section provides a glimpse of the Group-wide initiatives we are undertaking in schools.

We run about 20 schools and colleges, most of them close to our operations. **Over 11,250 students are studying in these schools.** Given that most of these schools are in remote parts of the country, they are contributing to bringing quality education within reach of all.

Other than running these schools and colleges, we also collaborate with existing government schools, in strengthening learning, improving infrastructure, and provisioning of mid-day meals.

Over 250,000 students in government schools are reached through these initiatives.

#### **MID-DAY MEALS**

We realise the importance of proper nutrition for school-going children and contributing by providing mid-day meals in government schools every day. Over 68,500 school children were served fresh, nutritious and delicious meals every day through the three centralised kitchens supported by us. Proper government-approved diet charts are followed to prepare weekly menus to suit the tastes and nutritional requirement of children.

#### PROMOTING DIGITAL EDUCATION

With the objective of promoting digital education and literacy in the rural areas, Vedanta Foundation & Vedanta Limited, in collaboration with the Directorate of Education, Government of Goa and Government of Karnataka, have launched Smart Class & Science Lab pilot project for the students. The aim is to get these students oriented to smart technology in a friendly manner.



#### **Smart Class**

#### 13 schools in Goa and 7 schools in Chitradurga district of Karnataka

Under the project, Vedanta is enabling innovative learning through K-Yan, a portable device which converts any wall into an interactive teaching surface. This allows students to experience interactive multimedia content, virtual experiments, curriculumbased educational videos, and facilitates training for teachers.

#### Science Lab

#### 30 schools in Goa

The Science Lab incorporates a package of 55 different science interactive working models mapped to the state educational curriculum, providing a forum for children to pursue their natural curiosity and inventiveness.

#### EDUCATING THE GIRL CHILD

We acknowledge that education is the single most important factor to ensure gender equality and empowerment. Our businesses have introduced a number of short as well as long-term programmes to ensure education of the girl child. The programmes are aligned with the Indian Prime Minister's 'Beti Bachao, Beti Padhao Abhiyan' (Save the Girl Child, Educate the Girl Child Programme).

Sterlite Copper's 'llam Mottukal' aims to ensure that girls are provided with quality school education in an enabling environment so that she can realise her fullest potential.

This project is impacting

8,046

girls across 86 schools in Thootukudi district of Tamil Nadu

The project, in its fifth year now, has resulted in 80% improvement in the learning levels of girl children and 95% pass percentage in the class 10 exams.

Vedanta Vidyarthi Vikas Yojana (VVVY) at Jharsuguda has significantly improved the pass percentage of girls from

18% in 2008 to 99.80% in 2016.

Till date 3,031 high school students have availed academic support through VVVY centres at rural villages of Jharsuguda.

The project, in collaboration with NGO partner AJKA, is spearheaded with active involvement of the parents, village watch committees and trained teachers.



SDG3, SDG6

Our development programmes are devised to serve specific needs of the community. During the comprehensive business-wide need based assessment conducted two years ago, it was observed that access to medical and sanitation facility, and awareness of personal hygiene were the two glaring lacunae in rural India. In addition to providing support to local governments for ensuring access to Health & Sanitation facilities in remote locations, in FY 2015-16, we proactively extended WBCSD's WASH pledge from just our operational locations to encompass surrounding communities.

# & Sanitation

Improving water and sanitation infrastructure for the nearby communities is one of the Company's focus areas.

#### 217,000 villagers

benefited through access to safe water and sanitation initiatives.

Cairn O&G Business is providing safe drinking water for the rural population in operational vicinity by setting up water kiosks using RO technology. This also involves implementing one of largest community drinking water project of its kind in India, in partnership with PHED, Government of Rajasthan, where around 330 water purification units will be set up to provide safe drinking water to the community.

The operating model will ensure community ownership, usage of renewable energy to run the units, doorstep delivery of water and reject disposal through evaporation pits.



In Lanjigarh, under Project Swachhta,

**Indian Household** 

were constructed in 13 villages in partnership with Health and Sanitation Department

#### **Drinking Water 'WASH' Pledge Implementation** at Vedanta

As a signatory to the WBCSD 'WASH' (Water & Sanitation Hygiene) pledge, Vedanta strives to provide access to safe drinking water and promote best hygiene practices among its employees and the community.

In October 2014, Vedanta Group CEO, Tom Albanese, signed the WASH Pledge, followed by individual group companies' CEOs signing or endorsing the WASH Pledge in support of the group's commitment. Progress on implementation of WASH pledge is monitored by the Group's central sustainability team.

Vedanta commits to implement access to safe water, sanitation and hygiene at the workplace for all employees in all premises.

#### **Curative Health Services**

Health camps/mobile health units in rural areas not only help in diagnosing and treating diseases at an early stage, they also enhance awareness about the diseases and the means to prevent them. We join hands with the public health system as well as NGOs and hospitals that have a proven record of working in rural areas. While these camps mostly function as Out Patient Departments (OPDs), we refer complicated cases to nearby hospitals and, on a case to case basis, also extend support for treatment.

Other than camps, we run hospitals at various company locations, that provide quality care to not just the employees, but are often open to public at large.

During the year, across our businesses, more than

people

including employees, benefitted through these clinics, hospitals, camps and mobile health units.



#### **Eve camps**

Cataract and Glaucoma are major causes of blindness in the Northern Cape Area. Black Mountain Mining (BMM) supports the World Health Organization (WHO) and South African Government's 2020 strategy which focusses on improving the health status by preventing illness and disease, and eliminating avoidable blindness.

Between January and March 2017, BMM has helped restore eyesight of 197 people in De Aar, Calvinia, Aggeneys, Upington and Kuruman. In partnership with the Northern Cape Department of Health and the South African National Council for the Blind, BMM ensures that eye surgeons specialising in cataract removal continue to reach these remote communities.

Last year, the South African Institute of Mining and Metallurgy recognised this life-changing initiative by presenting BMM with a Health and Wellness Award.

#### **Addressing Health through Awareness Programmes**

For all of us, when it comes to health, prevention really is better than cure - and especially so for communities living in remote parts. And the first step to prevention is awareness. Our awareness programmes, most often in conjunction with a health camp, cascade this awareness using easy-to-understand local language idioms and medium.

As part of its week-long commemoration of world aids day, Skorpion Zinc helped generate greater awareness of HIV/AIDS



TSPL conducted 23 Health Awareness Sessions in Punjab which were attended by

School students were also provided with dental care products under this

#### Celebrating Health & Raising Awareness, One Day at a Time

Good health makes every day worth celebrating. During the year, various Vedanta businesses celebrated and raised awareness in conjunction with globally observed 'special days'.

#### **WORLD MALARIA DAY | APRIL 25**

Vedanta Lanjigarh organised an awareness session on malaria along with a blood test camp in Basantpada, catering to a catchment of 12 villages. Over the years, through the Zero Malaria Drive, Vedanta has reached out to 50,000 people including pregnant women, infants and senior citizens.

#### WORLD TOILET DAY | NOVEMBER 19

Sterlite Copper dedicated three school sanitation complexes at TNDTA School, Meelavittan, TNDTA Primary School, Periyanagayapuram and R.C Primary School, Vadakkusilukkanpatti schools.

#### **WORLD AIDS DAY | DECEMBER 01**

In support of the United Nations' HIV Prevention 2016 campaign to end the epidemic by 2030, Vedanta observed World AIDS Day by creating awareness among employees, contractors and the entire community about the disease.

Sesa Goa Iron Ore conducted yoga sessions for its employees

Sterlite Copper at Tuticorin, Tamil Nadu, introduced 'Upa Yoga' to relieve stress in ioints and muscles

MALCO Energy Limited conducted a Yoga session for over 750 school students of 15 schools in Mettur, Tamil Nadu

Cairn O&G Business encouraged 'desk yoga' comprising 'asanas' that employees can perform at their workstations

#### **Pink Drive**

BMM, South Africa

The Khai-Ma region in Northern Cape, South Africa is a hotbed for various forms of cancer and has inadequate access to primary and secondary health facilities. The Black Mountain Mining partnered with Pink Drive, a non-profit company to create awareness on breast cancer and make a difference in the Khai-Ma Municipality. The mobile clinic remained active through the year and conducted 262 clinical breast exams, 52 mammograms, 152 pap smears and 85 PSA tests.



#### **Creating Medical Infrastructure**

With the objective of improving medical facilities for the community and medical education in the region, Vedanta has partnered with the State Government of Odisha to set-up a Government Medical College in Bhangabari at Bhawanipatna, Kalahandi District at an estimated investment of

Vedanta will provide infrastructural support and the college is scheduled to be completed by 2018.

The state-of-the-art hospital, being built as part of the college, will provide easy access to medical treatment for the communities residing in the region.

#### HARNESSING THE SUN TO PROVIDE WATER

ONE OF THE KEY HURDLES IN ENHANCING ACCESS TO WATER, IS AVAILABILITY OF POWER. INTERMITTENT SUPPLY OF POWER IN DEVELOPING COUNTRIES MAKES IT DIFFICULT TO OPERATE PUMPS THAT EXTRACT, PURIFY OR TRANSPORT WATER. HERE IS HOW VARIOUS VEDANTA BUSINESSES HAVE OVERCOME THIS CHALLENGE.

## THE SEWNIWALA PROJECT - CAIRN O&G BUSINESS

Cairn O&G Business, under a
Memorandum of Understanding with
Public Health and Engineering
Department (PHED) of Rajasthan, is
establishing 331 RO plants across
Barmer District. These plants, with
capacities ranging from 1,000 to 3,000
litre per hour are being installed to
provide safe drinking water
to more than

1 million
people living in
800 villages.

Since power availability remains unreliable in some areas of Barmer, we are harnessing its abundant, year-round sunlight to power the RO plants. The first plant based on this pioneering initiative has been installed at Sewniwala in Baytu Tehsil. **This is India's largest solar operated** 

**community based RO Plant.** The plant's MNRE certified panels generate a power of 5KW and store the same in batteries – adequate for 8 to 10 hours of plant operations.

The Sewniwala plant also serves devotees who weather harsh conditions and walk hundreds of kilometres to reach Ram Devra, a local pilgrimage spot in the Jaisalmer area. In order to make the plant self-sustaining in the long run, a nominal amount of INR 0.25 per litre is being charged from the local community.

To maximise use of this renewable source of energy, some of the water purification plants are also being operated with solar energy.

Under this initiative, we plan to setup around

35 solar operated plants



#### THE CHINGOLA PROJECT - KCM

During the reporting period, KCM installed a solar powered bore-well comprising a water purification system in Shimulala, benefitting 2,000 people. Being solar powered makes the system independent of the electrical grid and thus, more dependable. Looking at the positive response, KCM has decided to scale up the project to 4 additional communities, eventually benefitting 6,000 people in some peri-urban areas of Chingola.

#### **Women's Empowerment**

**⋞**| spgs

While a lot has been done for women's empowerment in India and other developing nations, a lot still remains to be done – especially in the areas of women's education and economic empowerment.

World over, the Self Help Group (SHG) movement has successfully and systematically empowered marginalised women through awareness raising, capacity building, economic empowerment and solidarity. At Vedanta too, we are working with women's Self Help Groups across several of our locations.

#### DIRECT ECONOMIC IMPACT THROUGH SHG SUPPORT | FY 2016-17

Total number of SHGs	3,216
Total members in SHGs	38,765
SHGs engaged with livelihood activities	470
SHG members engaged in income generation activities (includes agriculture/animal husbandry/outsource activities)	3,815

No. of women who established micro enterprises (small scale business)

#### Here is a snapshot of some select SHG-related activities initiated by our businesses during the reporting period:

At BALCO, under Project Unnati, 187 SHG women were linked with various income generating activities like mushroom cultivation, paper bowl making, snacks making, etc.

Till date

**1,144** SHG women

365 women

have been linked to income generation



Sterlite Copper's Sakhi project helped create 112 SHGs comprising 1,464 women members. Credit linkages amounting to

NR 24.6 million

were mobilised through nationalised banks.

20 new SHGs with 242 members were formed by MALCO Energy Ltd. (MEL). Credit linkage of

#### INR 5 million

was facilitated through banks.

At HZL, the Sakhi Self Help Group (SHG) programme was re-launched in partnership with Saheli Samiti and Manjari Foundation. The programme is working in a saturation mode, aiming to cover at least 60% households in the chosen villages.

Accordingly, this year

505 SHGS

6,600 women members.

A few production centres have also been set up that are making garments, papad, spices, etc.

The high point of the programme this year was the International Women's Day celebration across all HZL locations, in which over 6,500 women participated. The celebrations consisted of discussions, songs, theatre, sports – all designed to reinforce women's self-confidence.

At Lanjigarh, under Project Sakhi, during the reporting period, approximately

INR 2.5 million

were disbursed as internal loan to various members, out of the cumulative saving of

INR **7.3** million.



In addition, the SHGs created credit linkages worth

INR 6.9 million
resulting in around 620 women being

engaged in various income generating activities. Till date, around 2,183 women have been engaged through 196 SHGs across 45 villages.

# ENTREPRENEURIAL SPIRIT IN WOMEN



Vedanta Ltd. at Jharsuguda, under the aegis of 'Vedanta Integrated Jana Jivika Yojana (VIJJY)', promoted Subhalaxmi Cooperative Society (SCS) - one of the largest all women cooperative society in the region. The project provides capacity building support, business development services (BDS) as well as financial services to its members for augmenting their diversified livelihoods.

SINCE ITS INCEPTION IN 2008-09, SCS HAS FORMED OVER 277 SELF HELP GROUPS CONSISTING OF 3,226 MEMBERS IN 63 PERIPHERAL VILLAGES OF JHARSUGUDA, KOLABIRA AND KIRMIRA BLOCKS. IT HAS ALSO PROMOTED MORE THAN 2,392 MICRO ENTREPRENEURS IN ITS OPERATIONAL VILLAGES.

Here are some of the success stories:

#### **SUSHMITA PATEL**

Sushmita Patel, 32, lives in Keldamal village in Kolabira Block. Her husband used to work as a daily wage labourer with a sponge company. But the wages were both meagre and irregular. To augment the family income, Sushmita took up membership in SCS and took a loan of INR 5,000. With additional credit support from the cooperative, she gradually established herself as a good entrepreneur and started a paper plate unit in her house.

Sushmita bought a machine with a capital investment of

INR 16,000 and started supplying different kinds of paper plates to wholesalers.

Her husband now supports the venture by helping in procurement of material and selling the products. The family income has now crossed INR 15,000 per month.

#### **HIRAWATI PURUWA**

Whenever Hirawati found time from her household responsibilities, she would help her family cultivate vegetables in the one acre of land they owned. In October 2013, she decided to become financially independent and became part of an SHG at Bhimior village. She took an initial credit of INR 7,000 to start her own chilli and tomato cultivation. SCS, in partnership with Horticulture Department and Krishi Vigyan Kendra, provided her with all the necessary training support to enhance the quality of yield.

Today, she sells chilli grown by her to a wholesaler at Bhubaneswar and earns approximately

INR 15,000 per month.

#### **Skill Enhancement**



🖈 | SDG4

Investments in human resource assets are the most impactful and long-lasting investments. Various national governments, mindful of this fact, have started putting great emphasis on education and skilling programmes aimed at making youth more employable. In solidarity with this impetus, Vedanta conducts high impact skilling programmes for youth (in partnership with government as well as non-governmental bodies), leading to enhanced family incomes while also boosting the economy.



DIRECT ECONOMIC IMPACT THROUGH YOUTH EMPOWERMENT

17,091

youths were provided vocational skills training in FY 2016-17



2,750

youth linked to earning opportunities in FY 2016-17

#### INITIATIVE

#### **VEDANTA SKILL SCHOOL**

**BALCO, CHHATTISGARH** 

Since 2010, Vedanta's Skill School at BALCO (Korba, Chhattisgarh), in partnership with International Leasing & Financial Services (IL&FS), has trained nearly 6,120 youth and linked marginalised sections of society with the mainstream economy. During the reporting year, it trained

947 youth.

#### TAMIRA MUTHUKKAL

STERLITE COPPER, TAMIL NADU

At Sterlite Copper, the 'Tamira Muthukkal' project mobilises, motivates and trains unemployed, unskilled youth and facilitates suitable employment linkages. Since 2014, in association with IL&FS, 811 youngsters have been trained as electricians, Tally cum data entry operators and sewing machine operators.

71%

of students trained, have also found employment.

#### **SESA TECHNICAL SCHOOL**

**SESA IRON ORE, GOA** 

Since its inception in 1994, the Vedanta-Sesa Technical School (STS) in Sakhali, Goa has trained

1,341 youth

in trade skills like Machinist, Fitter, Electrician and Instrument Mechanic. Both STSs have maintained a 100% result rate in the Industrial Training Institute (ITI) trade examinations and have recorded successful placements every year.

Another unique initiative by the Sesa Iron Ore is the Sesa Football Academy (SFA). Established in June 1999 in Goa, on a rehabilitated mine, SFA has till date produced 123 footballers at the national and international level. Presently 36 boys are under training in the four-year long residential coaching programme that includes formal schooling.



All trade courses are affiliated with the National Council of Vocational Training, New Delhi and State Council of Vocational Training, Govt. of Goa.

#### YUVANTARAN MINING ACADEMY

HZL, RAJASTHAN

Underground mining is the future of mining, but there is a dearth of enough skilled manpower in this area. HZL is working to change this and has initiated possibly the largest such initiative, focussed on preparing manpower for underground mining. Some of our early passouts have even joined international mining companies, on the strength of this training. We are currently running 2 programmes - one is an intense 18-month residential training for Heavy Earth Moving Machinery (with 110 rural youth), and the other is an 8-month residential programme for Winding Engine Drivers (with 47 rural youth). Both programmes are being implemented in partnership with the Skill Council of Mining Sector (SCMS) & Indian Institute of Skill Development (IISD).

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# PLACING WOMEN IN THE DRIVING SEAT

**GAMSBERG** 

Mining is still widely regarded as a man's profession. Thus, we see fewer women working in the mining areas. While setting up the Gamsberg project, we saw great potential in training the women from Khai-Ma region to work in an open pit mine as Haul Truck Operators. Roux Mining, our contractor and business partner, joined forces with us on a pilot project to provide the required training.



More than 180 applications were received. The shortlisted women were interviewed by a panel comprising representatives from Roux Mining management, Gamsberg Project HR, and the National Union of Mineworkers. 14 candidates were selected and given a 4-hour tour of Gamsberg. **During this tour, they had the opportunity to ride in a 100-tonne Haul Truck while observing an experienced operator. Of these candidates, 9 women were ultimately selected for the pilot programme.** The remaining candidates will be given an opportunity in the future.

The programme consists of theoretical and practical training that includes

50 quality hours of operating a Haul Truck.

Learners are registered with the Mining Qualifications Authority and receive a monthly stipend during their training. Both Gamsberg Project and Roux Mining are responsible for learners' well-being in terms of accommodation, meals, travel costs and stipends. Through this initiative, we aim to change the way women are viewed in mining and open doors to one more economic opportunity for them.

🖈 | SDG8

#### **Agriculture & Animal Husbandry**



Agriculture forms the basis of food security globally. For developing countries, agriculture is key to poverty alleviation and a key driver of growth. Vedanta promotes agriculture, livestock & livelihood development programmes in the countries of its operation, especially in India and Africa.

#### INITIATIVE

#### UPLIFTING RURAL NAMIBIA, ONE GOAT AT A TIME SKORPION ZINC, NAMIBIA

The project, started in March 2012, aims to accelerate poverty eradication in Namibia by offering rural, underprivileged families a sustainable entrepreneurial opportunity through goat farming.

The Goat project was launched in collaboration with the Office of the Governor and the Nama Traditional Authorities after a needs assessment was carried out by the Ministry of Agriculture. It is designed to be sustainable and to provide cascading benefits. In order to set off a cascading effect, after three years, some of the offspring are given to a second set of beneficiaries who, in turn, replicate the entire process. This essentially creates a virtuous cycle that can endure for many years to come.

In FY 2016-17, the project added 5 new families, bringing the number of beneficiaries to 21. Each beneficiary receives 31 goats. More than 60% of the beneficiaries are women - a deliberate intervention to assist women-headed households in rural Namibia.

In FY 2016-17, we assisted

90,000 farmers

for agriculture and allied interventions.





Communicating Constructively | Advocacy | Awards & Accolades

We operate in the belief that businesses are not isolated entities. In every decision, we emphasize on stakeholder dialogue and mutual respect.

Our endeavour is to build a platform for transparent discourse on sustainability communication with all our stakeholders.

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# STRATECIC COMMUNICATIONS COMMUNICATIONS COMMUNICATIONS COMMUNICATIONS

Strategic engagement and communication help us understand our investors and wider stakeholders (customers, suppliers, employees and society) and the issues that are relevant to them. Our approach to materiality issues are based on feedback from stakeholders. We periodically assess the reputational perception of the organisation and ensure timely communication is cascaded to all relevant stakeholders. This further strengthens our engagement and creates harmony with all our diverse stakeholders.

Vedanta's footprint spans over eight countries in four different continents. Diverse regions have different operational and geographic challenges including demography, business environment, economic development, culture and stakeholder expectations. The goal is to ensure that the organisation communicates in one voice across geographies on critical issues across the stakeholder spectrum. Together, we are one organisation with one vision - 'One Vedanta' - We are a company with a purpose.

STRATEGIC COMMUNICATION HELPS US PROACTIVELY AND TRANSPARENTLY COMMUNICATE WITH ALL STAKEHOLDERS, CREATE SYNERGIES, COMBAT MISREPRESENTATION, MITIGATE RISKS, HARMONISE THE ENVIRONMENT, AND REINFORCE OUR REPUTATION.



We ensure that extensive information is available across reports, websites, presentations and digital communications, that help investors and analysts to understand the growth and value drivers of the company.

This pillar further reflects our commitment to becoming a more transparent, purpose-driven and responsible corporate citizen.

We continually measure the outcomes and perceptions of our communication plan through a robust mechanism to gauge its effectiveness among the stakeholders, and make improvements wherever necessary.

# COMMUNICATING CONSTRUCTIVELY

#### **INVESTORS & LENDERS**

Investors and lenders constantly seek information from the organisation on the how safety of their capital, how it is deployed, and what are the returns expected. Vedanta continually engages with all providers of capital, through detailed audited financial reports and other focused engagement mechanism such as SRIs and Sustainable Development Day.

#### INITIATIVE

#### **VEDANTA HOSTS 2ND ANNUAL SUSTAINABLE DEVELOPMENT DAY**

Vedanta is committed to deliver sustainable and responsible growth that creates value for all stakeholders. To showcase some of the milestones traversed in this journey, Vedanta Resources hosted the second Sustainable Development Day in London. Detailed updates on the Company's sustainable development activities were shared with analysts, investors and members of key industry bodies. The entire management team, including Chairman Mr. Anil Agarwal, was available for an open discussion.

Ahead of the event, Vedanta had sought views from participants on the sustainable development issues they would like to know more about. In congruence with participant responses, detailed presentations were made on the Company's overall approach to sustainability and on specific areas such as climate change, environmental management, safety, fatality prevention, community relations and human rights.



ANIL AGARWAL, Chairman, Vedanta Resources emphasised on sustainable development - a priority for the company and its subsidiaries, and the organisation's mission to achieve the goal of zero harm, zero discharge and zero waste

PHILLIP TURNER, Group Head of Health, Safety and Environment, walked participants through the initiatives underway to develop a culture of safety at Vedanta.

TOM ALBANESE, Chief Executive Officer, spoke about the Company's approach to sustainability risks embedded within the overall business, key focus areas and actions to mitigate risk.

ROMA BALWANI, President, Group Sustainability, CSR & Communications detailed the efforts undertaken last year to institutionalise a transparent dialogue mechanism and embed a robust grievance process. She also explained how crucial it was to engage in an on-going dialogue with the community and other stakeholders to build trust.

EUAN MACDONALD, Non-Executive Director & Chairman of Vedanta's Sustainability Committee, shed light on the Committee's achievements during three years of his leadership.

KATYA ZOTOVA, Non-Executive Director & member of the Sustainability Committee\* explained that safety and stakeholder engagement would be priorities for the Committee going forward.

**DESHNEE NAIDOO, CEO Vedanta Zinc International,** shared how the focus has moved from accident prevention to fatality prevention, and to identifying and managing critical hazards and controls.

\*During the reporting period, Ms. Zotova became Chairperson of the Sustainability Committee after Mr. Macdonald's retirement from the Board.

#### **GOVERNMENT**

The natural resources industry is highly regulated and it is important to engage with the Government on project progress, local challenges, community developments and other processes for formulating fair policies. To ensure community development through Public-Private-Partnership model, Vedanta proactively engages with the local and national governments of the geographies it operates in, on a regular basis.

#### **VEDANTA BAL CHETNA ANGANWADI (VBCA) PROGRAMME**

Hindustan Zinc signed an MoU with Government of Rajasthan to support 3,055 Anganwadis in 5 Districts.

#### **ACTING AGAINST CATARACT**

Black Mountain Mining (BMM) supports the World Health Organization (WHO) and South African Government's 2020 strategy which focusses on improving the health status by preventing illness and disease, and eliminating avoidable blindness.

#### **CONTRIBUTING TO HARNESS AND CONSERVE WATER**

The Mukhya Mantri Jal Swavlamban Abhiyan (MJSA) has been launched by the state government of Rajasthan to ensure effective implementation of water harvesting projects and water conservation activities. Our businesses in Rajasthan have wholeheartedly supported this campaign and have helped construct a number of community water conservation projects.

#### STRATEGIC ENGAGEMENTS

Constructive competition is the need of the hour in the Natural Resources industry. We actively take part in various global and local industry fora to communicate our vision for the sector as well as keep abreast with new perspectives. We also regularly interact with academia for strategic inputs and with the media to raise the industry awareness amongst the public.

#### Industry

#### **WORLD ECONOMIC FORUM 2017 | DAVOS**

Mr. Anil Agarwal participated in the World Economic Forum, Davos 2017, where the focus was around the 'Fourth Industrial Revolution', the role of technology and its potential to transform the future of mankind. Every year, the world's best minds and global leaders assemble at Davos for the World Economic Forum annual meeting to discuss the state of the world.

#### INDIA ECONOMIC SUMMIT | NEW DELHI

Mr. Anil Agarwal co-chaired the India Economic Summit in New Delhi. The theme of the summit this year was 'Fostering an Inclusive India through Digital Transformation'. More than 600 delegates from over 30 countries including political leaders, top policymakers and CEOs participated in the summit organised by World Economic Forum and Confederation of Indian Industry (CII).

#### THE MINING INDABA | AFRICA

Mr. Anil Agrawal and CEO Tom Albanese participated in Investing in African Mining Indaba. It is an annual professional conference dedicated to the capitalisation and development of mining interests in Africa and currently the world's largest mining investment conference and Africa's largest mining event.

#### INTERNATIONAL MINING & MACHINERY EXHIBITION | KOLKATA, WEST BENGAL

The 13th International Mining & Machinery Exhibition (IMME) in 2016 featured 290 exhibitors, with participants from countries such as Australia, China, Germany and Russia. At the event, Vedanta showcased its CSR and Sustainability initiatives. This immersive experience was applauded by numerous visitors, ranging from company directors and government officials to students and prospective vendors.

#### **GLOBAL INVESTORS' SUMMIT | MOMENTUM JHARKHAND**

Mr. Anil Agrawal announced various business and social initiatives for the state, at the Momentum Jharkhand Global Investors' Summit. The summit aims to establish Jharkhand as a premier investment destination for both foreign as well as domestic investors.

#### MAKE IN ODISHA CONCLAVE BHUBANESHWAR, ODISHA

The 'Make in Odisha' Conclave was held in Bhubaneswar with the key objective of showcasing the manufacturing prowess of the State and the investment opportunities across focus sectors. Vedanta took active part in the conclave with a centrally-located stall highlighting group-wide achievements in sustainability, CSR and business.

#### PETROTECH | NEW DELHI

The 12th edition of the flagship event of India's hydrocarbons sector was held in New Delhi, Cairn O&G Business' stall featured scale models of the Cairn Enhanced Oil Recovery process and Water ATM initiatives, eliciting tremendous interest among the visitors which included Union Minister for Petroleum and Natural Gas, Mr. Dharmendra Pradhan.

#### **NATIONAL CONCLAVE ON MINES & MINERALS | RAIPUR**

Vedanta Sesa Goa Iron Ore was awarded a 5-Star rating at the National Conclave on Mines and Minerals at Raipur for its Codli and Bicholim mines in Goa. This was part of the Star Rating Scheme implementation of the Sustainable Development Framework (SDF) formulated and finalised by the Ministry of Mines.

#### **Academia**

Academic institutes and industry working together is a two-way partnership. The industry gains expertise in areas such as innovation and research, and trained graduates who are better equipped to enter the business world, the academic institutes benefits from the funding, financial benefits, and enhanced education opportunities for the students.

#### Media

The media is a source of information that helps civil society stay abreast with and to shape the public policy agenda and priorities. Our media strategy is to provide credible information consistently to shape the true brand image of Vedanta among our stakeholders and builds trust through transparency. We regularly communicate with international, national and regional news channels, and the print media leading to a wide coverage of Vedanta's performance and goals.

Vedanta has strategically positioned itself as a low-cost producer equipped to face the commodity downturn and support the nation's economy through the significant contribution to the exchequer.

#### INITIATIVES

#### **GAZING IN THE MEDIA MIRROR**

While media is a gateway to all our stakeholders, one of our vital constituencies is the media itself. During the reporting period, we conducted a dipstick research about Vedanta with 25 key journalists and analysts of the natural resources sector. The findings were very encouraging.

80%

respondents gave a bright outlook of Vedanta

mentioned CSR as one of the positives of the company

36%

36% 48%

mentioned credible management as a positive of the Company

indicated regulatory hurdles as being a key challenge for Vedanta

#### **SOCIAL MEDIA - FAST EMERGING AS THE ENGAGEMENT TOOL OF CHOICE**

Social Media has gained traction across the group and among our leadership team. Daily engagement helps highlight the group's achievement, trigger insightful conversations and maintain engagement with stakeholders. All group companies have a presence on social media platforms.





@NavinAgarwal\_V @DeshneeNVedanta



Our senior management as well as flagship programmes are active on Twitter.



@AnilAgarwal\_Ved







#### **KEY STORIES IN THE REPORTING YEAR**

Chairman, Mr. Anil Agarwal, honoured by Bihar Chambers of Commerce and Industries for his contribution to the natural resources sector globally

Year-end results, production results and the Annual General Meeting

Announcement of Hindustan Zinc's Golden Jubilee dividend, which was the largest ever dividend paid by any company in the private sector in the Indian history

Letter of Award' for Redevelopment of Mormugao Port

Launch of 'Eureka' and the creation of a dedicated fund to augment innovative practices & technology

Appointment of CFO Arun Kumar as Director of Vedanta Board and Bhumika Sood as Company Secretary

Vedanta's Global Internship Programme was one of the key HR initiatives

Leadership participation at global and

Awards won by Vedanta and its various businesses

Projects on literacy, skill development and the launch of Nand Ghar

#### **CIVIL SOCIETY**

Civil society plays multiple roles in the nation's governance and development agenda alongside governments and industry. They are facilitators, conveners, innovators as well as service providers, advocates and grantors of societal license. We strongly believe that civil society is a glue that binds public and private activity together in such a way that it amplifies the common good. With an overarching mission to serve society, we are always eager to engage in a constructive dialogue and take feedback. Our recently conducted third party dipstick assessment with various stakeholders including civil society showed our improvement in creating harmony among our local communities in India, South Africa and Zambia.

#### **ENGAGING WITH COMMUNITIES**

We work in some of the world's most remote regions, and we have a responsibility towards the local communities. We follow a two-pronged approach: We undertake CSR activities to create a positive social impact, and we proactively engage with the community to resolve trust deficit issues, if any. We listen intently to concerns of the community, evaluate and address them. We also share factual data on how the community will benefit economically, socially and environmentally through our projects.

We have close to 100 Nand Ghars operational across 5 states in India. These new-age rural preschools attract local communities and bring in effective dialogue with all stakeholders. The project also leverages digital programmes and engaging visuals, in solar-powered centres that provide uninterrupted electricity. The women and children who come to these centres lead a healthier life, learn new skills and use the communication tools that empower them.



#### **VEDANSH - A NEWS MAGAZINE DEDICATED TO** AND CREATED BY PARTNER COMMUNITIES

In Odisha last year, Vedansh was launched to create awareness on developmental initiatives, technical excellence, innovation, sustainable efforts, commitment of our workforce in Lanjigarh and Jharsughuda and our commitment to the state and nation to a wider section of people. 'Vedansh' - our development diary, is telecast every Sunday on News 7. News 7 is among the top two Odia News Channels of Odisha with a wide viewership base globally viewed by Odia community.

For more information about our community-centric initiatives and programmes, please refer to the Community section on page 53.

#### **EMPLOYEE ENGAGEMENT**

Our employees are our brand ambassadors and it is vital that they remain updated about the vision, mission, goals and progress of the Group and its businesses. We engage with them on a regular basis through town hall meetings, e-zines, newsletters, social media, group interactions and the newly introduced V-connect app. Our engagements have a threefold objective: receive on-ground feedback on stakeholder expectations, listen to their views on ongoing initiatives, and receive suggestions for new ones, plus keep them informed about the organisation's actions and plans so that they feel connected and can hold informed conversations with stakeholders.

#### **Newsletters & Publications**

Here are some of the Group-wide and business-specific newsletters that help us engage with the employees in a transparent and timely manner.

Pulse The Group-wide HR newsletter covers a plethora of topics like messages from the top leadership, engagement initiatives across the group, updates on various workshops and performance indicators and future plans keeping our employees abreast about current events.

Weekly Buzz An E-Newsletter published by Vedanta Limited Jharsuguda, it provides employees, a platform to share interesting aspects of their professional and personal life.

Zinc News The in-house newsletter of HZL includes the Chairman's message, town hall updates, updates and impacts of various CSR activities and the seminar/workshop calendar for the month ahead. Its section 'Ask for Zinc' highlights little known usages of zinc in everyday life.

BALCO Manch The BALCO newsletter highlights the impacts of various CSR activities, the awards and accolades won by the business and shares the leadership's vision for future.

Konkola News The KCM newsletter includes the CEO's message, updates on technology, safety and training, and testimonials and case studies of employees.

#### **CORPORATE CAMPAIGN**

A strong brand effectively achieves acceptance among all its stakeholders, and builds employee satisfaction and retention, adding value to the core purpose of the organisation. On March 27, 2017, we launched our corporate advertising campaign, to create awareness on the positive impact of natural resources in the lives of every individual.

The statement 'Transforming Elements', in the form of a tagline, is the single most visible manifestation of our diversified natural resources business which produces metals essential to  $every day \ life, in frastructure, technology \ and \ ensuring \ self-sufficiency \ of \ any \ country's \ economy$ and contributing to a sustainable future. The campaign plays a significant role in augmenting Vedanta's brand equity in the society at large with the pledge of dedicating 75% of the wealth created to social good.



# STRATEGIC COMUNICATIONS ADVICATIONS ADVICATIONS

As a sector leader, active industry advocacy is a responsibility of Vedanta. We invest resources to set the narrative for the future of the natural resources industry

We have a deep understanding of the issues that affect the industry including the strengths, weaknesses challenges and strengths of the sector. Over the years, we have nurtured a team of experts who are specialists in advocacy across specific stakeholder segments - right from shaping of public policies to informing the community about our efforts in education, health and livelihood.

#### INITIATIVE

#### **GLOBAL NATURAL RESOURCES CONCLAVE 2017 | DELHI**

Network 18 & The Confederation of Indian Industry (CII) organized the first 'Global Natural Resources Conclave', on 4th & 5th April 2017. This event was curated by Vedanta Resources. This initiative aims to position India as a formidable global player in the natural resources landscape. It will, therefore, enable an opportunity for global business to partake of the untapped opportunity in India. It was endorsed by the Indian Government's Ministry of Environment Forest and Climate Change, Ministry of Mines, Ministry of Steel.



Network 18 **GLOBAL NATURAL RESOURCES CONCLAVE** vedanta



Panel Discussion on Sustainable Development (L-R) Prodipto Ghosh; Ravichandran Purushothaman; Andrew MacLeod; Pierre Gratton; Anuradha Sengupta; Amita Prasad; Mark Wiseman; Kirit Parikh

Lending support to the Conclave were domain experts, country partners and global think tanks active in the space. These include The Energy and Resources Institute, World Economic Forum & World Business Council for Sustainable Development, International Council on Mining and Metals, Federation of Indian Petroleum Industry, among others.

The two-day Conclave also built scale and gravitas through collaboration with Canada sharing the 'Country Perspective' at the Conclave. The Conclave saw proactive collaboration from 30 countries and industry leaders as well as the most influential Indian and global names in the natural resources space spanning all sub-sectors including oil & natural gas, mining & minerals, power, metals - aluminium, copper and zinc, etc.

# SOURCE COMMICATIONS CONTINUES AND ACCOLADES

#### CORPORATE

Hindustan Zinc received a commendation for Significant Achievement in Corporate Excellence, at the CII-ITC Sustainability Awards 2016

#### **INNOVATION & TECHNOLOGY**

Team TPP (2400 MW) won the 'IPPAI

INNOVATION AWARD' in Energy Conservation and Alternate Usage of fuel category

Sustainability is an integral part of our business strategy and the awards and laurels that are bestowed upon us every year, distinguish us from the competition and validates our leadership in the market. This year too, we were recognised for our excellence in various spheres of sustainability.

#### **SUSTAINABLE DEVELOPMENT & CSR**



Vedanta Limited won in the 'Mining - Metals and Minerals' category at the **Dun & Bradstreet Corporate Awards 2016** 

CII survey ranked Vedanta among **Top 10 most Sustainable companies in India** 

Cairn O&G Business was awarded the 'Special Technical Award (Corporate) - Sustainability and Corporate Social Responsibility' at Petrotech

Institute of Directors commended Talwandi Sabo Power Limited's efforts towards ensuring a sustainable future

Hindustan Zinc Limited won in the 'Non-Ferrous & Precious Metals' category at the Dun & Bradstreet Corporate Awards 2016

#### **ENERGY CONSERVATION**



Cairn O&G Business was awarded the 'Game Changer - Oil & Gas Company of the year' by Petroleum Federation of India -PetroFed, for its continuous outstanding work on Enhanced Oil Recovery project.

Jharsuguda CPP unit received the 'Excellent Energy Efficient Unit' award at the 17th National Energy Management 2016

Sterlite Copper received the 'Energy Efficient Unit' Award at the 17th National Energy Management Award 2016 held by CII GBC

Hindustan Zinc received the much-coveted SAP ACE Award 2016 for its Hindustan Zinc - MII Project

BALCO awarded as the **Excellent Energy Efficient Unit at the 17 CII National Awards** 

#### **ENVIRONMENT**



Sterlite Copper bagged '4 Star Rating'
Award in the CII Southern Region
Environment, Health and Safety (EHS)
Awards

Vedanta led the India Disclosure Index 2016 and emerged as the only company in the natural resources sector to achieve full score across all disclosure parameters

BALCO's Bodai-Daldali Mines in Kabeerdham were proud recipients of the **Greentech Safety Gold Award** 

Sterlite Copper was awarded the

CII National Award for Excellence in Water Management, for its zero-discharge plant with storage pond

Hindustan Zinc won the **CII National Award** for Excellence in Water Management, 2016

#### **OPERATIONAL EXCELLENCE**

Vedanta Limited Odisha received the Best Exporter's Award 2014-15 from Government of Odisha

Sterlite Copper bagged the **Golden Peacock Business Excellence Award** 

Vedanta's Value Addition Business won the Frost & Sullivan's India Manufacturing Excellence Awards (IMEA)

Hindustan - Zinc Central Research and Development Laboratory (CRDL) received the 'Par Excellence Award' at the 4th National Conclave

Sterlite Copper bagged the

Manufacturing Supply Award 2016, presented by Future Supply Chain, for Excellence in Manufacturing Supply Chain -Heavy Engineering

Cairn O&G Business won the **DL Shah Gold Quality Award for its Integrated Quality Management Approach in Rajasthan** 

#### **HEALTH & SAFETY**

Zinc International's Black Mountain Mining won the Southern African Institute of Mining and Metallurgy's prestigious Health and Wellness Award

The Konkola Geology First Aid Team won the 11th Chamber of Mines Inter-Mine First Aid Competition

#### **EMPLOYEE**

Vedanta featured among the 100 best companies for Women by the Working Mother Research Institute and AVTAR

Vedanta was also awarded 'Top Companies to Work for in Asia' by Asia Corporate Excellence & Sustainability (ACES)

Sterlite Copper won the Golden Peacock HR
Excellence Award for Overall Excellence in
HR and People Management Practices

Jharsuguda received the coveted

BW Business World HR Excellence Award for Excellence in Workplace Practice Innovation for the year 2016

#### TY COMMUNITY

TSPL team won the 'Organization Category'- Social & Community Impact at the 9th India Power Awards 2016

Sesa Goa Iron Ore awarded the **Best Education Improvement Award by the National Awards for Excellence in CSR & Sustainability** 

#### **LEADERSHIP**

Vedanta was conferred the '2016 India Non-Ferrous Growth Excellence Leadership Award' and the '2016 India Mining/Minerals Growth Excellence Leadership' Award at the Frost & Sullivan India Best Practices Awards

Cairn O&G Business received the National CSR Leadership Award for Cairn Centre of Excellence and its Safe Drinking Water initiatives

Sesa Goa Iron Ore won the 'Environmental Leadership Award' in the Responsible Business Awards

# ABOUT THIS REPORT

This is our eighth Sustainable Development Report and coincides with the publication of our Annual Report.

Combined these two documents provide an overview of our approach and our achievements in FY 2016-17, outlining our actions over the past year to achieve our mission to be a world-class diversified natural resource company.

#### **Reporting Scope and Boundary**

Covering the financial year 2016-17, the report is structured around our Sustainable Development Model's pillars of Responsible Stewardship, Building Strong Relationships, Adding and Sharing Value, and Strategic Communications.

All group subsidiary companies except Fujirah gold have been reported in full as though they were 100% wholly owned as we recognise the level of control and sphere of influence the Group has over these operations.

The aspect boundaries and content of this Sustainable Development Report have been defined using reporting principles prescribed in the GRI G4 guidelines and is prepared 'in accordance' - Core criteria of the Global Reporting Initiative (GRI) G4 Guidelines.

We followed the approach described in GRI implementation manual for designing the report content. The material aspects that have been covered in the report are clearly brought out in the materiality matrix. In the report, the DMA (Disclosure on Management Approach) describes the Company's approach to the subjects relevant to it and the indicators provide details on performance on the specific subjects.

There are no specific restatements of the information provided in the previous reports and no significant changes in terms of acquisition and physical boundaries from the previous reporting periods in the scope and aspect boundaries.

The report is also mapped to the United Nations Global Compact (UNGC) and United Nations Sustainable Development Goals (UN SDGs) principles. It reports our approach and disclosure towards triple bottom line principles - people, planet and profit over the financial year 2016-17.

#### **GRI G4 Content and Disclosure Document**

The GRI G4 detailed content index and Vedanta GRI G4 Disclosure Document FY 2016-17 includes the core and additional indicators including the Mining and Metal and Oil and Gas supplements disclosure is available on our website.

#### **Assurance and Disclosure**

Assurance of this report was carried out by KPMG under 'limited assurance' services in accordance with the ISAE 3000. There is an internal approval system in the Company for appointment of external assurance provider for the sustainability report.





The Management and Board of Directors

Vedanta Resources Plc

16th Berkeley Street, London, United Kingdom, W1J 8DZ

#### **INDEPENDENT LIMITED ASSURANCE STATEMENT**

KPMG in India (KPMG) was engaged by Vedanta Resources Plc ('the Company' or 'Vedanta') to provide an independent assurance on its Sustainability Report for FY 2016-17 ('the Report'). The Report is prepared by the Company based on Global Reporting Initiative (GRI) G4 Guidelines 'in-accordance - core' disclosure criteria for sustainability reporting.

The development of Report, its content, identification of key material issues, engaging with stakeholders is the sole responsibility of the management of the Company. KPMG's responsibility is to provide limited assurance on the Report content as described in the scope of assurance.

#### **REPORTING CRITERIA**

Vedanta applies its sustainability performance reporting criteria based on Sustainability Reporting Guidelines (G4) of Global Reporting Initiative (GRI) including the Mining and Metals and Oil & Gas Sector Disclosures, National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVG) framed by the Ministry of Corporate Affairs (MCA), Government of India, United Nations Global Compact (UNGC) principles, International Council on Mining and Metals(ICMM) and Sustainable Development Goal frameworks for the Company as detailed in the 'Scope, Boundary and Limitations'.

#### **ASSURANCE STANDARDS USED**

We conducted limited assurance in accordance with the requirements of International Federation of Accountants (IFAC), International Standard on Assurance Engagement [(ISAE) 3000, (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information. Under this standard, we have reviewed the selected information presented in the Report against the criteria of relevance, completeness, reliability, neutrality and understandability.

#### SCOPE, BOUNDARY AND LIMITATIONS OF ASSURANCE

The Assurance has been provided for sustainability performance disclosures presented by Vedanta in its Report for the period 01 April 2016 to 31 March 2017. Our Scope of assurance included verification of the sample data and information on material aspects reported at the following units/locations and Corporate office at Gurgaon:

- Vedanta Limited (Jharsuguda smelter & power plant, Orissa)
- Hindustan Zinc Limited (Chanderiya Lead Zinc Smelter, Rajasthan)
- **Hindustan Zinc Limited** (Rampur Agucha, Rajasthan)
- Vedanta Ltd. Sesa Iron Ore (Value Added Business, Goa)
- Vedanta Ltd. Sesa Iron Ore, (Codli Mines, Goa)
- Cairn India Ltd. (Rageshwari Gas Terminal)
- Cairn India Ltd. (Ravva Onshore)
   Cairn India Ltd. (Bhagyam field)

- Zinc International (Konkola Copper Mines, Zambia)
- Hindustan Zinc Limited (Rajpura Dariba Mines & Smelter, Rajasthan)
- Cairn India Ltd. (Mangla Processing Terminal)
- Cairn India Ltd. (Suvali Terminal)
- Vedanta Resources Plc (Corporate Office, Gurgaon)
- Hindustan Zinc Limited (Corporate Office, Udaipur)
- Cairn India Limited (Corporate Office, Gurgaon)

The assurance scope excludes:

- Data and information outside the defined reporting period and boundary;
- The Company's financial performance;
- The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention and assertions related to Intellectual Property Rights; and
- Aspects of the report other than those mentioned below;

The General and Specific Standard Disclosures subject to assurance were as follows:

#### **General Standard Disclosures**

- Strategy and Analysis: G4-1 Organizational Profile: G4-3 to G4-16 Identified Material Aspects and Boundaries: G4-17 to G4-23
- Stakeholder Engagement: G4-24 to G4-27 Report Profile: G4-28 to G4-33 Governance: G4-34 Ethics and Integrity: G4-56

#### Specific Standard Disclosures

- Environment: Energy (G4 EN3, G4 EN5, G4 EN6, G4 OG2, G4 OG3) | Water (G4 EN8, G4-EN10) | Biodiversity (G4 EN11, G4-EN14) Emissions (G4 EN15, G4 EN16, G4 EN18, G4 EN21) | Effluents and Waste (G4 EN22 to G4 EN24, OG-5, OG-7, G4 MM3)
- Labor Practices and Decent Work: Employment (G4 LA1 to G4 LA3) | Occupational Health and Safety (G4 LA6) | Training & Education (G4 LA9 to G4 LA11) Diversity and Equal Opportunity (G4 LA12)
- Human rights: Non-discrimination (G4 HR3) | Child Labor (G4 HR5) | Forced or Compulsory Labor (G4 HR6)
- Society: Local Communities (G4-SO1, G4-SO2)

#### **KPMG** (Registered)

Building No. 10, 8th Floor, Tower-C DLF Cyber City, Phase-II, Gurugram - 122 002 (India) Tel.: +91 124 307 4000 Fax: +91 124 254 9101 www.kpmg.com/in

#### **METHODOLOGY ADOPTED FOR ASSURANCE**

Our assurance processes involve performing procedures to obtain evidence about the reliability of specified performance information. The nature, timing and extent of procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the selected sustainability disclosures whether due to fraud or error. In making those risk assessments, we have considered internal controls relevant to the preparation of the Report in order to design assurance procedures that are appropriate in the circumstances.

We have obtained sample evidence, information and explanations that were considered necessary in relation to the assurance scope and have arrived at conclusions mentioned below. Our work included a range of evidence-gathering procedures including:

- Assessing that the report is prepared in accordance with the Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI G4 in accordance "Core" criteria).
- Reviewing the Report to ensure that there is no misrepresentation of disclosures as per scope of assurance and our findings.
- · Reviewing the materiality and stakeholder engagement framework deployed at Vedanta.
- Understanding the appropriateness of various assumptions used for estimation of data by Vedanta.
- Assessing the systems used for data collection and reporting of the General Standard Disclosures and Specific Standard Disclosures of material aspects as listed in
  the assurance scope above
- . Verifying systems and procedures used for quantification, collation and analysis of sustainability performance indicators included in the Report.
- Testing on a sample basis, the evidence supporting the data and information.
- Holding discussion with senior executives at the plant locations and at the corporate office to understand the risks and opportunities from a sustainability perspective including the strategy that Vedanta has adopted to address the same.
- Assessing data reliability and accuracy.
- · Verifying select key performance data through site visits to operational locations and corporate office for:
- Testing reliability and accuracy of data on a sample basis.
- Assessing stakeholder engagement process through interactions with relevant internal stakeholders and review of related documentation
- Limited review of the materiality assessment process
- Reviewing the processes deployed for collection, compilation and reporting of sustainability performance indicators at corporate and plant level.

Appropriate documentary evidence was obtained on a sample basis to support our conclusions on the information and data verified. Where such documentary evidence could not be collected due to sensitive nature of information, our team verified the same at Vedanta's premises.

#### CONCLUSIONS

We have reviewed the Sustainability Report of Vedanta. Based on our review and procedures performed as described above, nothing has come to our attention that causes us not to believe that the sustainability data and information presented in the Report is fairly represented in line with the identified material issues and is in accordance with the sustainability reporting guidelines (G4) of the Global Reporting Initiative.

We have provided our observation to the company in a separate management letter. These, do not, however, affect our conclusions regarding the Report.

#### **INDEPENDENCE**

The assurance was conducted by a multidisciplinary team including professionals with suitable skills and experience in verifying environmental, social and economic information in line with the requirements of ISAE 3000 (Revised) standard. Our work was performed in compliance with the requirements of the IFAC Code of Ethics for Professional Accountants, which requires, among other requirements, that the members of the assurance team (practitioners) as well as the assurance firm (assurance provider) be independent of the assurance client, in relation to the scope of this assurance engagement, including not being involved in writing the Report. The Code also includes detailed requirements for practitioners regarding integrity, objectivity, professional competence and due care, confidentiality and professional behavior. KPMG has systems and processes in place to monitor compliance with the Code and to prevent conflicts regarding independence. The firm applies ISQC 1 and the practitioner complies with the applicable independence and other ethical requirements of the IESBA code.

#### **RESPONSIBILITIES**

Vedanta is responsible for developing the Report contents. The Company is also responsible for identification of material sustainability issues, establishing and maintaining appropriate performance management and internal control systems and derivation of performance data reported. This statement is made solely to the Management of Vedanta in accordance with the terms of our engagement and as per scope of assurance. Our work has been undertaken so that we might state to Vedanta those matters for which we have been engaged to state in this statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than Vedanta for our work, for this Report, or for the conclusions expressed in this independent assurance statement. The assurance engagement is based on the assumption that the data and information provided to us is complete and true. We expressly disclaim any liability or coresponsibility for any decision a person or entity would make based on this assurance statement. By reading this assurance statement, stakeholders acknowledge and agree to the limitations and disclaimers mentioned above.

Jadu

Santhosh Jayaram

KPMG 16 June 2017

# ASSURANCE ASSURANCE INDICES

#### **UNITED NATIONS GLOBAL COMPACT**

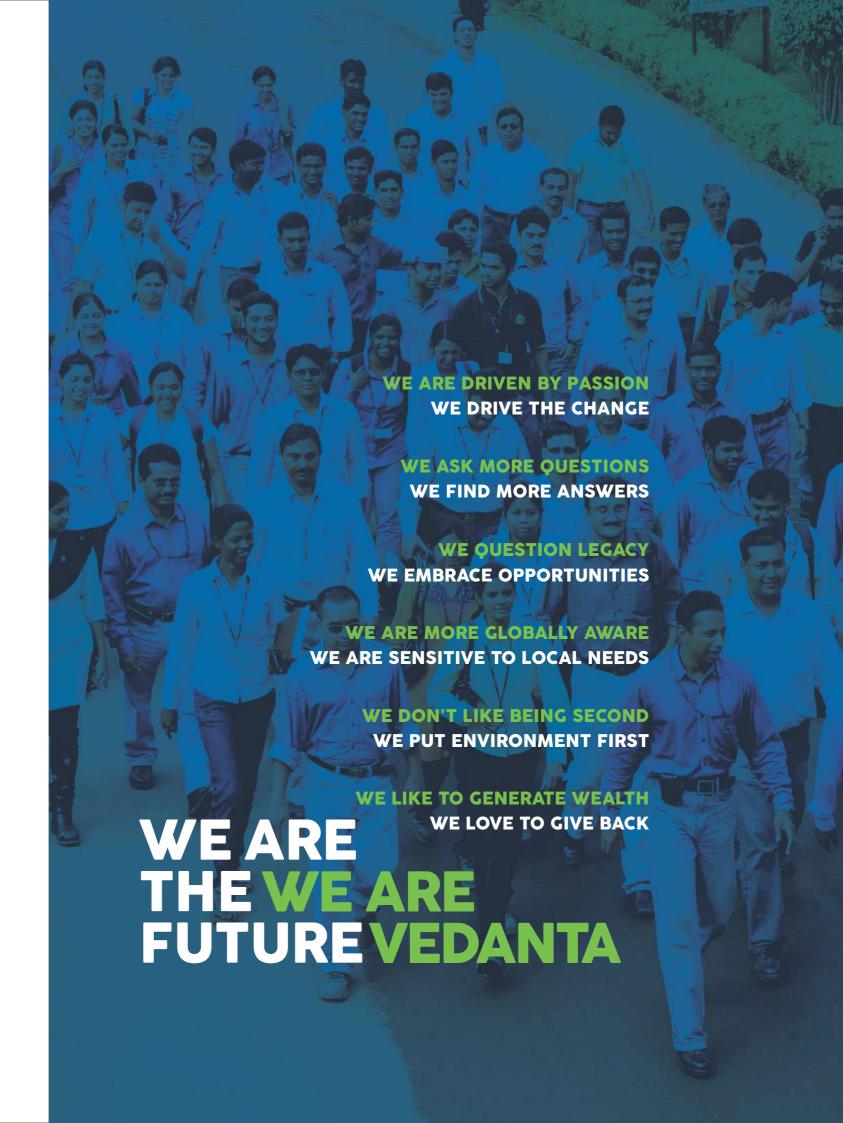
We continue to uphold the ten principles of the UNGC. Our Sustainable Development report communicates our progress in implementing the ten principles, and below we have mapped the principles against our various sustainability aspects and specific report sections.

Aspect	UNGC Principle	Report Reference	Page No.
Human Rights	Principle 1: Businesses should support and respect the protection of Internationally proclaimed Human Rights	Human Rights	38-40
	Principle 2: Make sure that they are not complicit in human rights abuses	Human Rights	39, 14
Labour Rights	Principle 3: Businesses should uphold freedom of association and the effective recognition of the right to collective bargaining	Human Rights	39
Child and	Principle 4: The elimination of all forms of forced and compulsory labour	Human Rights	40
Forced labour	Principle 5: The effective abolition of child labour	Human Rights	39
	Principle 6: The elimination of discrimination in respect of employment and occupation	Employees	50
Environment	Principle 7: Business should support a precautionary approach to environmental challenges.	Environment	25
	Principle 8: Undertake initiatives to promote greater environmental sustainability	Environment Governance	29 15
	Principle 9: Encourage the development and diffusion of environmentally friendly technologies	Environment Customers	37, 29 47
Ethics and Integrity	Principle 10: Business should work against corruption in all its forms, including extortion and bribery	Governance	13

#### **UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (UN SDGs)**

In September 2015, the UN member states agreed on a set of 17 Sustainable Development Goals (SDGs), to end poverty, fight inequality and injustice, and tackle climate change by 2030. This year, we have prioritised the Sustainable Development Goals (SDGs based on materiality issues and operational competency. We are now in the process of chalking out targets and action plans to address the relevant Goals. Given below is our SDG priority list which states our endeavours that align with the said goals.

SDGs		Report Reference	Page No.
SDG1	Poverty	Community Relations	53-63
SDG5	Gender Equality	Employee Community Relations	50 60
SDG6	Clean Water and Sanitation	Community Relations	57
SDG7	Affordable and Clean Energy	Environment	25,27
SDG8	Decent Work and Economic Growth	Employee	48-52
SDG13	Climate Action	Environment Our Strategy and Approach	27 09
SDG14	Life on Land	Biodiversity	29
SDG2	Hunger	Community Relations	53-55
SDG4	Quality Education	Community Relations	55, 56, 62
SDG3	Good Health and Well-being	Safety and Occupational Health Community Relations	21,52 57
SDG10	Reduced Inequalities	Employees Community Relations	50 53-63
SDG11	Sustainable Cities and Communities	Community Relations Environment	53-63 29
SDG5	Gender Equality	Employee Community Relations	50 60
SDG9	Industry, Innovation and Infrastructure	Strategic Communications CEO's Message	67,71 06
SDG12	Responsible Consumption and Production	Environment	25-33
SDG16	Peace, Justice and Strong Institutions	Governance Human Rights	13 38
SDG17	Partnership for the Goals	Advocacy Stakeholder Engagement	70 37





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#### **GET IN TOUCH**

We value your feedback and welcome comments on this report or any aspect of our approach to sustainability reporting. sustainability@vedanta.co.in



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